

AD-A235 643

2

**Seventh  
Quadrennial  
Review of  
Military  
Compensation**

DTIC  
ELECTE  
MAY 27 1993  
S C D

**Allowances**  
Major Topical Summary (MTS) 3

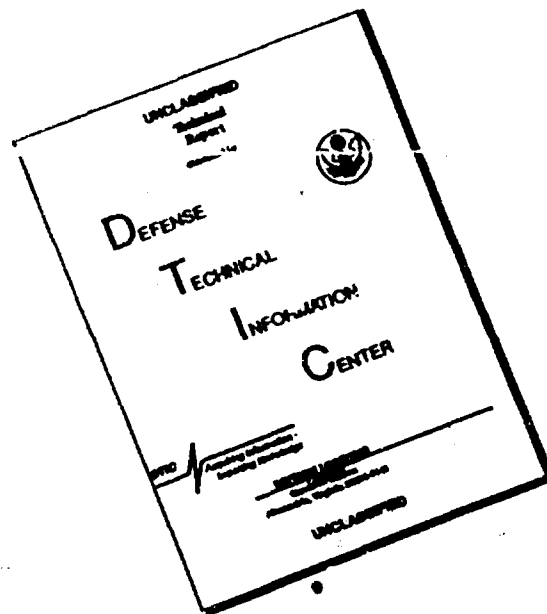
DISTRIBUTION STATEMENT A

Approved for public release  
Distribution Unlimited

August 1992

93-11977  
11 7

# DISCLAIMER NOTICE



THIS DOCUMENT IS BEST QUALITY AVAILABLE. THE COPY FURNISHED TO DTIC CONTAINED A SIGNIFICANT NUMBER OF PAGES WHICH DO NOT REPRODUCE LEGIBLY.

REPORT DOCUMENTATION PAGE			Form Approved GSA FPMR (41 CFR) 101-11.6	
<p>Supersedes GSA FPMR (41 CFR) 101-11.6, which is hereby canceled.</p>				
1. AGENCY USE ONLY (leave blank)	2. REPORT DATE AUG 92	3. REPORT TYPE AND DATES COVERED Final		
4. TITLE AND SUBTITLE Allowances Major Topical Summary (MTS) 3		5. FUNDING NUMBERS		
6. AUTHOR(S) Brigadier General James W. McIntyre, USAF Executive Director, Seventh Quadrennial Review of Military Compensation (7th QRMC)		8. PERFORMING ORGANIZATION REPORT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) The Seventh Quadrennial Review of Military Compensation The Pentagon, Room 3D820 Washington, DC 20301-4000		10. SPONSORING/MONITORING AGENCY REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) Office of the Assistant Secretary of Defense (Force Management and Personnel) The Pentagon, Room 3E764 Washington, DC 20301-4000		11. SUPPLEMENTARY NOTES		
12a. DISTRIBUTION/AVAILABILITY STATEMENT  Available to the public.		12b. DISTRIBUTION CODE		
13. ABSTRACT (Maximum 200 words)  This MTS of the 7th QRMC presents analyses, findings, and recommendations concerning the allowances system of the seven uniformed services. The QRMC's proposal for a simplified allowances system includes linking food and housing allowances to costs, combining the basic allowance for quarters and the variable housing allowance into a single allowance, and basing that allowance on an external price survey. In addition, the QRMC proposes a new continental United States cost-of-living allowance and briefly reviews thirty-one other allowances.				
14. SUBJECT TERMS allowances, food costs, housing costs, basic allowance for subsistence, basic allowance for quarters, BAS, BAQ, VHA, CONUS COLA			15. NUMBER OF PAGES 392	
17. SECURITY CLASSIFICATION OF REPORT Unclassified			16. PRICE CODE	
18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified		19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified		20. LIMITATION OF ABSTRACT

## ALLOWANCES



## Seventh Quadrennial Review of Military Compensation

## ALLOWANCES

### 7<sup>th</sup> QRMC Major Topical Summary (MTS) 3

RECEIVED 3

**August 1992**

Accession For	
NTIS CRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification _____	
By _____	
Distribution /	
Availability Codes	
Dist	Avail and/or Special
A-1	

*Allowances*

*Major Topical Summary (MTS) 3*

A staff paper of the Seventh Quadrennial Review of Military Compensation  
August 1992

Office of the Assistant Secretary of Defense  
(Force Management and Personnel)  
The Pentagon, Room 3E764  
Washington, DC 20301-4000

## 7<sup>TH</sup> QPMC STAFF ANALYSES

The full set of the 7<sup>th</sup> QPMC study documentation includes this report and the 7<sup>th</sup> QPMC Staff Analyses, which form a series of stand-alone reports. The reports in the Staff Analyses provide detailed facts and logic of interest to the small audience of staff specialists who may require a more complete understanding of the findings and recommendations in our official report.

There are two types of documents in the Staff Analyses: Major Topical Summaries (MTSs) and Global Subject Papers (GSPs). MTSs cover primary areas of investigation, such as basic pay and allowances, while GSPs cover either theoretical considerations, such as the principles of compensation, or special research subjects, such as foreign military compensation systems. All other QPMC staff documents are internal working papers that do not necessarily represent the official views of the QPMC. The Staff Analyses consist of the following documents:

### MAJOR TOPICAL SUMMARIES (MTSs)

Compensation Structure .....	MTS 1
Basic Pay .....	MTS 2
Allowances .....	MTS 3
Special and Incentive Pays .....	MTS 4
Annual Pay Adjustment .....	MTS 5
Integration and Transition .....	MTS 6

### GLOBAL SUBJECT PAPERS (GSPs)

Foreign Military Compensation Systems Review .....	GSP A
The Target Force .....	GSP B
Modeling, Logic, and Theory .....	GSP C
Tax Issues .....	GSP D
Cost Analysis Methods .....	GSP E
Principles of Military Compensation .....	GSP F
Drawdown .....	GSP G
Service Comments on the Draft Report .....	GSP H

## ALLOWANCES

### CONTENTS

LIST OF PARTICIPANTS .....	xvii
CHAPTER 1—INTRODUCTION .....	1-1
CHAPTER 2—RESULTS IN BRIEF .....	2-1
Basic Allowance for Subsistence .....	2-2
Housing .....	2-4
Conus Cost-of-Living Allowance (COLA) .....	2-5
Other Allowances .....	2-6
CHAPTER 3—BASIC ALLOWANCE FOR SUBSISTENCE .....	3-1
Introduction .....	3-1
Results in Brief .....	3-2
History of BAS .....	3-3
Foreign Military Service Practices .....	3-4
Prior Major Studies .....	3-5
Service Policies and Procedures .....	3-5
BAS Proposal .....	3-6
A 'Fixed' Allowance .....	3-6
Food Cost Indices .....	3-6
Benefits .....	3-7
Implementation Alternatives .....	3-8
Unconstrained Method .....	3-8
Phase-in Method for New and Junior Enlisted Personnel .....	3-8
Balancing Current and Deferred Income .....	3-9
Summary .....	3-10
Other Issues .....	3-10
Field and Sea Meals .....	3-10
Surcharge .....	3-12
Summary, of Findings and Recommendations .....	3-13
CHAPTER 4—HOUSING ALLOWANCES .....	4-1
Introduction .....	4-1
Results in Brief .....	4-2
Background .....	4-3
Basic Allowance for Quarters .....	4-3
VHA and the 50 percent Offset .....	4-4
Declining Value of Housing Allowances .....	4-4
Joint Services Housing Allowance Study .....	4-5

Rate-Setting Methodology .....	4-6
Recent Housing Allowance Studies .....	4-6
Overview of the Current Rate-Setting Method .....	4-8
Estimation of Housing Price .....	4-8
Advantages of the Current Methodology .....	4-9
Housing Price Data and Members' Well-Being .....	4-11
Sources of Housing Price Data .....	4-12
Military HA vs. Price-Based HA .....	4-13
Summary .....	4-15
Housing Allowance Floor .....	4-16
JSHAS Findings and Recommendation .....	4-16
Floor Criteria .....	4-17
Fair Market Rent .....	4-18
Representation of Junior Enlisted Income Levels and Housing Consumption .....	4-18
Representation of Local Housing Markets .....	4-19
Representation of Current Rents .....	4-21
Summary .....	4-22
Runzheimer Rental Expense Data .....	4-22
Representation of Junior Enlisted Income Levels and Housing Consumption .....	4-23
Representation of Local Housing Markets .....	4-25
Representation of Current Rents .....	4-27
Summary .....	4-27
Comparison of the FMR and \$20K Floors .....	4-27
With-Dependents Floor .....	4-28
Without-Dependents Floor .....	4-29
Differential Impact of Floor Measures .....	4-32
Floor Costing .....	4-33
\$20k Floor vs. FMR Floor .....	4-33
BAQ as a Minimum Housing Allowance .....	4-34
Summary and Recommendation .....	4-34
50-Percent Offset .....	4-35
Impact of the 50-percent Offset .....	4-35
Data Analysis .....	4-36
Areas Where Housing Allowances Are Too High .....	4-36
Members With Atypical Housing Demand .....	4-37
Economizers .....	4-38
Summary .....	4-39
Housing Allowance Proposal .....	4-39
Objectives of the Housing Allowance .....	4-40
Price-Based Housing Allowances .....	4-40
Comparative Analysis: Price-Based HA vs. Current HA .....	4-41
Price-Based Housing Allowance Cost .....	4-41
Recommendation .....	4-44
System Design .....	4-44
System Administration Cost .....	4-45

Summary of Findings and Recommendations .....	4-46
System-Level Reforms .....	4-46
Rate-Setting Method .....	4-46
Interim Measures .....	4-47
<b>CHAPTER 5—CONUS COST-OF-LIVING ALLOWANCE (COLA) .....</b>	<b>5-1</b>
Introduction .....	5-1
Results in Brief .....	5-2
Background .....	5-3
Variations between Low-Cost and High-Cost Areas .....	5-3
Precedents for Locality Pay .....	5-4
Impacts .....	5-4
Other Considerations .....	5-7
Analysis of Cost-of-Living Variations .....	5-7
Methodology .....	5-8
Determine the Best Data Source .....	5-8
Select Appropriate Income Level and Family Size .....	5-9
Account for Base Infrastructure (Commissary, Exchange, and Medical Savings) .....	5-11
Select a Sample of the Total CONUS Service Member Population .....	5-12
Results .....	5-13
Summary .....	5-14
CONUS COLA Proposal .....	5-14
Threshold .....	5-14
QRMC Finding .....	5-16
Thresholds of Private Sector and Government Agencies .....	5-16
Calculating a CONUS COLA .....	5-17
Cost and Impact of Various Thresholds .....	5-18
Recommendations .....	5-20
Example of CONUS COLA with a five percent Threshold .....	5-21
Guard and Reserves .....	5-22
CONUS COLA Administration .....	5-22
Legislative Proposal .....	5-22
Summary of Findings and Recommendations .....	5-22
<b>CHAPTER 6—OTHER ALLOWANCES .....</b>	<b>6-1</b>
Background .....	6-1
Travel and Transportation Allowances .....	6-1
Clothing Allowances .....	6-3
Enlisted Clothing Allowances .....	6-3
Officer Uniform Allowance .....	6-3
Overseas Station Allowances .....	6-4
Overseas Housing Allowance .....	6-4
Overseas Cost-of-Living Allowance .....	6-4
Interim Housing Allowance .....	6-4
Temporary Lodging Allowance .....	6-5
Family Separation Allowance .....	6-5
Personal Money/Special Position Allowance .....	6-5
Recruiter Expense Allowance .....	6-6

IKR Muster Allowance .....	6-6
Partial Basic Allowance for Quarters .....	6-6
Other Allowances Proposals .....	6-7
Travel and Transportation Allowances .....	6-7
Temporary Lodging Expenses (TLEs) .....	6-8
Dislocation Allowance (DLA) .....	6-8
Officers' Uniform Allowances .....	6-8
Family Separation Allowance I (FSA-I) .....	6-9
Partial Basic Allowance for Quarters .....	6-10
Periodic Review .....	6-10
Operation and Maintenance Furded Allowances .....	6-10
Summary of Findings and Recommendations .....	6-10
<b>BIBLIOGRAPHY .....</b>	<b>Bib-1</b>
<b>APPENDIX A—SUMMARY OF U.S. ARMY NATICK RESEARCH AND DEVELOPMENT STUDIES OF RATIONS IN KIND VERSUS ALL-CASH BAS .....</b>	<b>A-1</b>
<b>APPENDIX B—DIFFERENCES BETWEEN THE SERVICES IN FOOD SERVICE POLICIES .....</b>	<b>B-1</b>
<b>APPENDIX C—UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) HUMAN NUTRITION INFORMATION SERVICES .....</b>	<b>C-1</b>
<b>APPENDIX D—COST ANALYSIS OF BAS ALTERNATIVES .....</b>	<b>D-1</b>
<b>APPENDIX E—FOOD AND FOOD SERVICE CHARGES—APPLICABILITY OF DISCOUNTED AND FULL RATES .....</b>	<b>E-1</b>
<b>APPENDIX F—JOINT SERVICES HOUSING ALLOWANCE STUDY (EXECUTIVE SUMMARY) .....</b>	<b>F-1</b>
<b>APPENDIX G—CURRENT VHA RATE-SETTING METHODOLOGY .....</b>	<b>G-1</b>
<b>APPENDIX H—1985 DOD SURVEY ANALYSIS .....</b>	<b>H-1</b>
<b>APPENDIX I—FACT SHEET RUNZHEIMER INTERNATIONAL LTD. ....</b>	<b>I-1</b>
<b>APPENDIX J—PRICE-BASED HOUSING ALLOWANCES FOR 84 MHAs .....</b>	<b>J-1</b>
<b>APPENDIX K—GRAPHS: PRICE-BASED HA vs. E-6 THA .....</b>	<b>K-1</b>
<b>APPENDIX L—REGRESSION ANALYSIS .....</b>	<b>L-1</b>
<b>APPENDIX M—FAIR MARKET RENT CALCULATION METHOD .....</b>	<b>M-1</b>
<b>APPENDIX N—1992 HOUSING ALLOWANCE RATES AND VHA POPULATION ...</b>	<b>N-1</b>

APPENDIX O—FMR AND RUNZHEIMER DATA .....	O-1
APPENDIX P—HOUSING ALLOWANCE RATES: WITH-DEPENDENTS FLOOR .....	P-1
APPENDIX Q—HOUSING ALLOWANCE RATES: WITHOUT-DEPENDENTS FLOOR .....	Q-1
APPENDIX R—ISSUES IN THE DESIGN OF HOUSING ALLOWANCES .....	R-1
APPENDIX S—PRICE-BASED HOUSING ALLOWANCES .....	S-1
APPENDIX T—SERVICE EXAMPLES OF CONUS HIGH-COST OF LIVING AREAS .....	T-1
APPENDIX U—SERVICE ASSIGNMENT DIFFICULTIES FOR HIGH-COST AREAS .....	U-1
APPENDIX V—BASE INFRASTRUCTURE ACCOUNTING METHODOLOGY .....	V-1
APPENDIX W—84 RANDOMLY SELECTED SURVEY AREAS .....	W-1
APPENDIX X—COST-OF-LIVING DATA .....	X-1
APPENDIX Y—DRAFT FY93 LEGISLATIVE CONTINGENCY CONUS COLA PROPOSAL .....	Y-1



## ALLOWANCES

### FIGURES

Figure 3-1.	Food Cost versus BAS Rates	3-1
Figure 3-2.	Absentee Rate for Military Messes	3-6
Figure 3-3.	Food Cost Indices	3-7
Figure 3-4.	Notional Problem: Fixing BAS as an Allowance (Enlisted)	3-9
Figure 3-5.	Notional Problem: Fixing BAS as an Allowance (Officers)	3-10
Figure 3-6.	Surcharge Rates	3-12
Figure 4-1.	Absorption Levels 1981-1990	4-5
Figure 4-2.	Growth of Civilian vs. Military Housing Costs	4-7
Figure 4-3.	VHA Population Distribution among Military Housing Areas	4-10
Figure 4-4.	Enlisted Members Reporting a Problem Finding Off Base Housing	4-11
Figure 4-5.	E-6 HA vs. Price-Based HA	4-14
Figure 4-6.	Bubble Plot of E-6 HA vs. Price-Based HA	4-14
Figure 4-7.	Fair Market Rents vs. E-4 Local Median Housing Costs	4-17
Figure 4-8.	Junior Enlisted VHA Population	4-19
Figure 4-9.	Washington, DC, FMR vs. Local Rental Costs	4-20
Figure 4-10.	Hatteras FMR vs. Local Rental Costs	4-21
Figure 4-11.	E-4 (with) HA vs. \$20k (2-BR) HA	4-24
Figure 4-12.	E-4 (without) HA vs. \$20k (1-BR) HA	4-24
Figure 4-13.	E-4 (without) vs. \$20k (Efficiency) HA	4-25
Figure 4-14.	Auburn Military Housing Area	4-26
Figure 4-15.	\$20k (2-BR) vs. FMR (2-BR)	4-28
Figure 4-16.	Floor Impact: Members with Dependents	4-29
Figure 4-17.	\$20k vs. FMR for 1-BR Units	4-30
Figure 4-18.	One-Bedroom Floor Impact: Members without Dependents	4-30
Figure 4-19.	Floor (Efficiency) Impact: Members without Dependents	4-31
Figure 4-20.	Without Rates vs. 1-BR and Efficiency Rentals	4-31
Figure 4-21.	Differences in (2-BR) Floor Impact	4-32
Figure 4-22.	San Bernardino FMR Market Area	4-33
Figure 4-23.	Cost of Alternative Floors	4-34
Figure 4-24.	Sharers in Low and High Housing Cost Areas	4-37
Figure 4-25.	Offset Impact by Level of Housing Cost	4-38
Figure 4-26.	1990 Offset recoupments: \$50M	4-38
Figure 4-27.	Offset Recoupments as a Percentage of RMC	4-39
Figure 4-28.	E-6 Price-Based Housing Allowance	4-42
Figure 4-29.	E-4 Price-Based Housing Allowance	4-42
Figure 4-30.	PHA-II Allowance Minus E-6 THA	4-44
Figure 5-1.	Cost-of-Living Increase for an E-5 Moving from Norfolk, VA to Four High-Cost Areas	5-5

## ALLOWANCES

### TABLES

Table 3-1.	Cost of funding field and sea meals .....	3-11
Table 4-1.	FMRs vs. Income FMRs .....	4-18
Table 4-2.	Price-Based Housing Allowance Program Cost .....	4-43
Table 5-1.	Cost-of-living Differential. ....	5-3
Table 5-2.	Index Values for Food at Home in Selected Cities (average=100) .....	5-3
Table 5-3.	Cost-of-living Differentials for Family Sizes of 2 and 4 .....	5-11
Table 5-4.	Formula for Calculating CONUS COLA .....	5-18
Table 5-5.	Number of Members Receiving CONUS COLA (Thousands) and FY 1991 Cost (\$ Million) from 0-18 Percent .....	5-19
Table 5-6.	Recipients of CONUS COLA at Each Threshold by Service .....	5-19
Table 5-7.	Areas Eligible for a CONUS COLA-Above a 5 Percent Threshold. ....	5-21
Table 6-1.	Other Allowances .....	6-2
Table 6-2.	Partial BAQ rates for FY 1977 and FY 1978 .....	6-8
Table B-1.	Differences between the services in food service policies. ....	B-2
Table D-1.	Subsistence Allowance and USDA Projections .....	D-1
Table D-2.	Unconstrained Cost of Fixing BAS .....	D-3
Table D-3.	Phase-In Cost of Fixing BAS .....	D-5
Table D-4.	Current Deferred and Phase-In Cost of Fixing LAS .....	D-7
Table H-1.	Hypothesis Test Results .....	H-2
Table J-1.	Price-based Housing Allowance for 84 Sample MHAs .....	J-2
Table L-1.	Regression Results .....	L-1
Table N-1.	1992 Housing Allowance Rates: With-Dependents .....	N-2
Table N-2.	1992 Housing Allowance Rates: Without-Dependents .....	N-15
Table N-3.	1992 VHA Population: With-Dependents .....	N-28
Table N-4.	1992 VHA Population: Without-Dependents .....	N-41
Table O-1.	FMR, \$20K Data & Runzheimer Survey Areas .....	O-2
Table P-1.	1992 Housing Allowance with \$20K Floor: With Dependents* .....	P-2
Table P-2.	1992 Housing Allowances with FMR Floor: With Dependents .....	P-13
Table Q-1.	1992 Housing Allowancees with \$20K (efficiency) Floor: Without Dependents* .....	Q-2
Table Q-2.	1992 Housing Allowances with FMR (efficiency) Floor: Without Dependents* .....	Q-13
Table R-1.	Comparison of Alternative Models for the Housing Allowance .....	R-11
Table S-1.	Price-Based Housing Allowances for E-6s with Dependents .....	S-2
Table S-2.	Price-Based Housing Allowances for E-1 to E-4 with dependents .....	S-4
Table S-3.	Price-Based Housing Allowances for E-1 to E-4 without dependents .....	S-12
Table V-1.	Example of the methodology used to account for the savings attributable to the availability of commissaries, base, or post exchanges, and medical facilities. ....	V-2
Table V-2.	Health Care Costs, by Source of Care, in 1990 Constant Dollars .....	V-5

Figure 5-2.	Cost-of-Living Increase for an O-4 Moving from Norfolk, VA to Four High-Cost Areas .....	5-5
Figure 5-3.	Retention Consequences .....	5-6
Figure 5-4.	Lost Buying Power .....	5-7
Figure 5-5.	Runzheimer International's Cost-of-Living Components .....	5-10
Figure 5-6.	CONUS Cost-of-Living Variation .....	5-13
Figure 5-7.	Skewed Distribution of Service Members .....	5-13
Figure 5-8.	Mean Career Cost of Living Index .....	5-15
Figure 5-9.	Threshold Cost and Number of Members Affected (DoD) .....	5-20
Figure 5-10.	Five Percent Threshold .....	5-20
Figure 5-11.	Threshold and CONUS COLA Differential .....	5-22
Figure 6-1.	Officer uniform allowances if indexed to the CPI .....	6-9
Figure D-1.	Change in Current and Future Cash - Enlisted .....	D-6
Figure D-2.	Change in Continuation Rates - Enlisted .....	D-6
Figure D-3.	Change in Continuation Rates - Officers .....	D-6
Figure D-4.	Change in Current and Future Cash - Officer .....	D-7
Figure 1-1.	FMR vs. HOUSING ALLOWANCES (E-4 W/DEPS) .....	F-7
Figure K-1.	Price-Based Housing Allowances, 28 highest cost from sample of 84 MHAs .....	K-1
Figure K-2.	Price-Based Housing Allowances, 29th-56th sample of 84 MHAs .....	K-2
Figure K-3.	Price-Based Housing Allowances, 28 lowest cost from sample of 84 MHAs .....	K-3
Figure M-1.	Flow charts of FMR calculation process .....	M-6
Figure R-1.	Housing Demand Curve .....	R-2
Figure R-2.	Indifference Curves .....	R-3
Figure R-3.	Equivalent and Compensating Variations Demand Curves .....	R-6
Figure R-4.	Housing Demand Curve .....	R-7

Table X-1.	Adjusted cost-of-living data as compared to standard city: . . . . .	X-2
Table X-2.	Unadjusted cost-of-living by category (\$30,000 income level, family size 4, March 1991) . . . . .	X-8

## ALLOWANCES

### LIST OF PARTICIPANTS

#### STAFF ANALYSIS

#### CONCEPTS AND INTEGRATION

Colonel Carl F. Witschonke, USA

Director

Captain Anthony S. Tangeman, USCG

Deputy Director

Colonel Philip Krejci, ARNG

Legal Research Analyst

Captain Eric A. Hawes, USMC

Compensation Analyst, Housing

#### COMPENSATION STRUCTURE

Lieutenant Colonel G. Richard Creekmore, USAF

Deputy Director

#### Allowances Division

Commander Susan M. Davis, USN

Chief, Allowances Division

Major Michael J. Casas, USA

Compensation Analyst, BAS

Major Christine B. Perritt, USA

Compensation Analyst, BAS

Major Walter F. Townsend, USAF

Compensation Analyst, CONUS COLA

Lieutenant Liz C. Berry, USNR

Compensation Analyst, CONUS COLA

Major Edward C. Miller, USA

Compensation Analyst, Other Allowances

Captain Stephanie A. Robinson, USAF

Compensation Analyst, Other Allowances

Lieutenant Commander Charles R. Forehand, USN

Compensation Analyst, Housing

#### Costing

Lieutenant Colonel D. Cragin Shelton, ANG

Compensation Analyst

Major Daniel J. Arena, USA

Compensation Analyst

#### QRM C SUPPORT

Mr. William H. Warnock

Director

## ALLOWANCES

### CHAPTER 1—INTRODUCTION

A distinctive feature of our military compensation system is its major emphasis on allowances. The importance of allowances in maintaining the military personnel system and institution has long been recognized. However, in light of evolving demographics, societal changes, fiscal constraints, and a general drifting of allowances from their intended purpose, their traditional role and effectiveness merit review. The following chapters summarize the 7<sup>th</sup> QRMC's analysis, findings, and recommendations regarding the effectiveness of this integral, but complex, part of the military compensation system.

The military allowances can be viewed as a collection of 34 independent elements of compensation designed to meet specific needs. Alternatively, the full set of allowances can be considered in a more integrated and global fashion. This discussion follows both approaches by analyzing the individual allowances both as independent elements and as part of the compensation system as a whole. Moreover, the QRMC focused most of its analytic attention on two areas: (1) the allowances included in the Regular Military Compensation (RMC) computation; and (2) the research leading to our recommendation for a new non-housing cost-of-living allowance (COLA) for members assigned to high-cost duty stations in the continental United States (CONUS).

The organization of this report reflects those two priorities. This introductory chapter is followed by an overview of our findings and recommendations in Chapter 2; the RMC allowances—Basic Allowance for Subsistence (BAS) and the housing allowances are discussed in Chapter 3 and 4 respectively. CONUS COLA is addressed in Chapter 5. Finally, Chapter 6 lays out a brief synopsis of the 31 remaining allowances and highlights the QRMC findings and recommendations in this area.

## ALLOWANCES

### CHAPTER 2—RESULTS IN BRIEF

Historically, the government has found it necessary to house, feed, and provide services to its members to develop and maintain an effective military force. Today's pay policies continue to support this requirement, with an allowance structure that makes cash payments to members whenever in-kind services are not provided by the government. The long held institutional value of this distinctive pay and allowance structure is best asserted by the 1978 report of President Carter's Commission on Military Compensation:

... The military relies to a much greater degree than most public- and private-sector institutions on allowances and in-kind compensation, which account for 30 percent of military pay.

This heavy reliance on allowances is justified on the grounds that it supports the military way of life. That is, to insure readiness and to provide for needs in isolated areas, personnel must live at the site of, or in close proximity to, their duties. In addition, the pay and allowance form of compensation appears to reinforce the view that the services "take care of their own," and thus contributes directly to building effective fighting units.<sup>1</sup>

Much has changed since the late 1970s. Members in today's high-quality, all-volunteer force are older and better educated. Increasing numbers are married, most often with working spouses. There are more single parents in the military, and increasing numbers of members married to members. Indeed, the current military population mirrors society at large as never before.

These changes have compelled DoD to modify the allowances to accommodate the demographic shifts noted and the fiscal realities facing the nation. A prime example of the dynamic situation is the need to address the growing regional cost-of-living variations across the continental United States. Repeated assignments to high-cost areas create hardships for the military members that are not redressed by the compensation system. The allowance structure provides the most logical and proper mechanism—from both a conceptual and cost-effectiveness perspective—to ameliorate this problem. The variable housing allowance (VHA), introduced in the early 1980s, is the only existing pay adjustment designed to account for regional differences. Clearly, major adjustments are needed to account for nonhousing cost-of-living differences, if for no other reason than to reinforce the view that the services *take care of their own*.

The allowance structure, inevitably, has become more complicated over time; continuous efforts are required to keep it *tuned* and as simple as possible. However, despite the problems

---

<sup>1</sup>Report of the President's Commission on Military Compensation, Washington, April 1978, 101-102.



identified, the QRMCM found that allowances play an increasingly critical role in maintaining a cost-effective and ready force.

Having established the value of and need for allowances in the military compensation system, the 7<sup>th</sup> QRMCM focused on:

- (1) Evaluating whether current allowances—particularly those for food and housing—continue to fulfill their intended purpose and, if not, what changes are required.
- (2) Determining whether U.S. regional cost-of-living differences are sufficiently accommodated with the VHA and, if not, what additional locality adjustment is required.

Said another way, the QRMCM attempted to answer two questions: is the cash paid to members in lieu of in-kind goods and services properly priced; and are the allowances that exist today responsive to major cost-of-living differences between assignment locations?

The answer to both questions is NO! First, pricing is a problem. For example, the Basic Allowance for Subsistence (BAS) no longer bears any relationship to the cost of food, and the housing allowances often do not support the cost of minimally adequate housing for families in many military assignment locations. Second, today's allowance structure is inadequate to handle regional cost-of-living differences between continental U.S. cities. These cost differences have increased significantly in the past 10 years—a trend likely to continue. Pay adjustments based on housing alone are no longer sufficient to cover nonhousing cost increases experienced by military families assigned to a number of high-cost areas.

A brief summary of specific findings and recommendations follows.

## **BASIC ALLOWANCE FOR SUBSISTENCE**

The government intended BAS to reimburse members of the uniformed forces for the cost of their food when subsistence in kind is not available. In reality, the system as it exists today is unnecessarily complex, often misunderstood, and generally perceived as unfair. If anything, today's BAS system tends to undermine the credibility of the pay and allowance structure within the ranks. This reality was underscored by complaints during Operations Desert Shield and Desert Storm about the cutoff of BAS upon members' deployment. It turned out that many military families depended upon BAS as supplemental income, not merely as reimbursement for the members' out-of-pocket food costs.

This allowance is payable to officers at all times on a monthly basis, and to enlisted personnel on a daily basis when rations in kind are not available, permission to mess separately is granted, or personnel are assigned to duty under emergency conditions. The policies for entitling enlisted members to BAS are a matter of service discretion and vary among the services. The allowance is adjusted annually based on the military pay raise.

Today, there is no connection between BAS and food costs as a consequence of several ad hoc adjustments over the years and the current adjustment process.

Numerous inequities plague the current system. All officers receive the BAS at one rate (which is less than food costs). Eligible enlisted members receive one of six rates, all of which exceed standard measures of food costs. Furthermore, none of the BAS rates equal the daily sale of meal rate (DSMR), which is the amount charged in military dining facilities. Enlisted members who receive BAS enjoy more discretionary income than those who are subsisted in kind. In addition, BAS provides more cash than is needed to purchase every meal in the dining facility. Officers, whose BAS is smaller than that provided to enlisted members, pay more than their allowance when eating in a military dining facility—an inequity exacerbated by the *surcharge* in government dining halls.

Simply put, BAS is broken. It should either be eliminated as an allowance or fixed to improve its understandability, fairness, and efficiency. This discussion focuses on fixing BAS as an allowance.

The best way to correct the problems identified would be to base BAS on the member's cost of procuring food on the economy. In this regard, the United States Department of Agriculture (USDA) Moderate Food Plan should be used to establish the BAS rate. The USDA data provide nationally recognized, government-sponsored standards for nutritional requirements and costing. The Moderate Food Plan for males, 20-50 years of age, covers the majority of the military population.

Another question considered was: Should members be charged for food provided in the field? While there is precedence in other nations for not charging members for field and sea meals, the QRMC found this practice contrary to the intent of the subsistence allowance during normal peacetime operations. During times of conflict, the QRMC suggests that the President consider using the established discretionary authority to treat field and sea meals as a *cost of doing business* by suspending the charges for meals provided in the field.

Finally, the QRMC reviewed the surcharge levied on some members when they eat in a dining facility. The intended purpose is to recoup that member's share of the operating expenses of the dining facility; but the current surcharge is neither an effective recoupment tool, nor is it fair. In fact, the meal cost with surcharge is approaching three times the actual cost of the meal. Finally, there are myriad exemptions from the surcharge, but members not entitled to one of them find use of the dining facility prohibitively expensive.

***The 7<sup>th</sup> QRMC recommends:***

- *Establishing a single BAS rate for all members, officer and enlisted; basing the rate on and indexing it to food costs calculated under the USDA Moderate Food Plan; and adjusting basic pay in all cases to preserve the present value of cash compensation.*

- *Standardizing dining facility and BAS administrative policies by applying the current officer procedures to all members.*
- *Eliminating the surcharge for all members except those in a temporary duty (TDY) status.*

## HOUSING

The government provides housing allowances to members to enable them to obtain civilian housing when government quarters are not provided. A member's housing allowance is the total of Basic Allowance for Quarters (BAQ) plus the Variable Housing Allowance (VHA) in the United States, or the total of BAQ plus the Overseas Housing Allowance (OHA) when assigned outside the continental United States. Housing allowances vary by rank and dependency status. Adjustment of these allowances also differs: BAQ is increased annually by the same percent as the military pay raise; VHA is determined regionally based on an annual member survey; and OHA is based on the member's actual rental expenses.<sup>2</sup>

The 7<sup>th</sup> QRMC concluded that a successful housing allowance must satisfy three major objectives:

- The housing allowance should be sufficient to procure adequate housing.
- A service member should be held *harmless* with respect to housing price variations in a permanent change-of-station (PCS) move.
- The allowance rates should enable the member to rent housing comparable to that occupied by civilians at similar income levels.

The survey of members' housing expenditures currently used to set housing allowance rates contains several inherent weaknesses. The fact that data gained from the survey are used to set housing allowance rates influences members' housing decisions and expenditures. Nowhere in the current system is there an external measure of local housing costs to link the allowance to the actual cost in the private sector. Thus, the allowances provided reflect what military people are *paying* for housing rather than what housing actually *costs* in the local area. As a result, the housing allowance pays for considerably less *house* in high housing cost areas than in low-cost areas.

Even if DoD overcame the problems associated with using expenditure data, the distribution of military personnel in the United States is not conducive to the use of a members' survey. Too few service members live in some areas to establish meaningful expenditure patterns. The 7<sup>th</sup> QRMC concluded that an external survey should be established as the basis for the housing allowance rate.

---

<sup>2</sup>Overseas members currently receive their full rent up to a ceiling set at the 80th percentile of the actual reported rents of members with the same grade and dependency status.

The DoD Authorization Act of 1985 assumed that members would absorb 15 percent of their housing costs from their basic pay. In fact, the absorption rate has increased to over 20 percent for some members, which further limits the member's ability to afford adequate housing.

The government also recoups a portion of a member's housing allowance if it is not spent on housing. This policy known as the 50-percent offset, is not cost-effective and undermines the member's welfare by constraining his or her spending.

*The 7<sup>th</sup> QRMCM recommends:*

- *Establishing a single housing allowance based on local housing costs, as determined by an external survey of housing price data.*
- *Eliminating the 50-percent housing allowance offset.*
- *Studying housing allowance entitlements for Reserve members on active duty for periods of less than 20 weeks.*

Weaknesses in the current rate-setting methodology particularly disadvantage junior enlisted members and members assigned to isolated resort areas. Until DoD implements a housing allowance system based on external price data, some near-term measure of protection should be afforded these members. Two interim recommendations outlined below would ensure that these military members can obtain adequate housing.

*The 7<sup>th</sup> QRMCM recommends implementing the following protective measures until a new rate-setting methodology is adopted:*

- *Creating a housing allowance floor to assure that junior enlisted members can afford adequate housing and basing the floor on an external survey of housing costs at the \$20,000 annual income level.*
- *Using external housing price data to establish rates in resort areas and other duty locations where the current allowances are clearly inadequate.*

## **CONUS COST-OF-LIVING ALLOWANCE (COLA)**

The military compensation system offers no allowance to cover variations in nonhousing costs. Our research reveals that nonhousing costs vary from 5 percent below to 19 percent above the national average, and the disparity in living costs between high- and low-cost areas continues to grow. It is possible today for a member to move from a low-cost to high-cost area and suffer a loss of nonhousing purchasing power of more than a reduction in rank of one full pay grade. Some members faced with an assignment to a high-cost area elect to leave the service rather than suffer the loss in purchasing power. Financial difficulties experienced by service members and their families are particularly acute in some locations,

especially for the Navy and Coast Guard who have a large percent of their forces assigned to high-cost coastal areas.

The 7<sup>th</sup> QRMF finds that nonhousing cost-of-living differences are significant enough to warrant the establishment of a CONUS COLA. The CONUS COLA would be payable to members assigned to high-cost areas and would properly take into account the availability of commissary, exchange, and health care facilities. It should be paid to members whose nonhousing costs are more than 5 percent above the national average. This would, in the aggregate, provide insurance against significant financial loss over a career.

*The 7<sup>th</sup> QRMF recommends establishing a CONUS cost-of-living allowance payable to members in locations where the cost of living not defrayed by other allowances, in-kind provisions, or military support facilities is more than 5 percent above the national average.*

## OTHER ALLOWANCES

There are 31 other allowances provided to recognize the special conditions or requirements of military service. These essentially pay or reimburse members for expenses incurred as a result of executing military duties. These allowances are divided into eight categories:

1. Travel and Transportation Allowances (17)
2. Clothing Issue and Maintenance Allowances (4)
3. Overseas Station Allowances (4)
4. Family Separation Allowances (2)
5. Personal Money Allowance/Special Position Allowance
6. Reimbursement for Recruiting Expenses
7. Individual Ready Reserve Muster Duty Allowance
8. Partial Basic Allowance for Quarters (BAQ).

The 7<sup>th</sup> QRMF briefly reviewed these other allowances and generally found that they serve a useful purpose. However, some corrections would be appropriate.

Several of the allowances are paid at a fixed rate prescribed in law, with no mechanism for periodic review or adjustment. These allowances typically fall well below the actual costs before action is taken to adjust them.

Partial BAQ is paid to members without dependents who live in the barracks or unaccompanied personnel housing. Because it has not been adjusted since 1977, its value has significantly eroded, and its purpose is, at best, murky. These funds could be better spent.

The recommended improvements to the housing allowances combine BAQ and VHA into a single allowance. A new standard will be needed to compute the BAQ *drag-alongs* (Dislocation Allowance (DLA) and Family Separation Allowance (FSA-I)). Both are currently calculated as a multiple of the BAQ rates.

*The 7<sup>th</sup> QRMC recommends:*

- *Reviewing and periodically adjusting fixed-rate allowances.*
- *Phasing out partial BAQ.*
- *Establishing a new rate basis for BAQ drag-alongs when a single housing allowance is adopted.*

## ALLOWANCES

### CHAPTER 3—BASIC ALLOWANCE FOR SUBSISTENCE

#### INTRODUCTION

Members of the armed forces receive a basic allowance for subsistence (BAS) to defray the cost of their food when they are not provided subsistence in kind. This allowance is payable to officers at all times on a monthly basis, and to enlisted personnel on a daily basis when rations in kind are not available, permission to mess separately is granted, or personnel are assigned to duty under emergency conditions. The policies for entitling enlisted members to BAS are a matter of service discretion and vary among the services. The allowance is adjusted annually based on the military pay raise. Today, there is no connection between BAS and food costs as a consequence of several ad hoc adjustments over the years and the current adjustment process (see Figure 3-1).

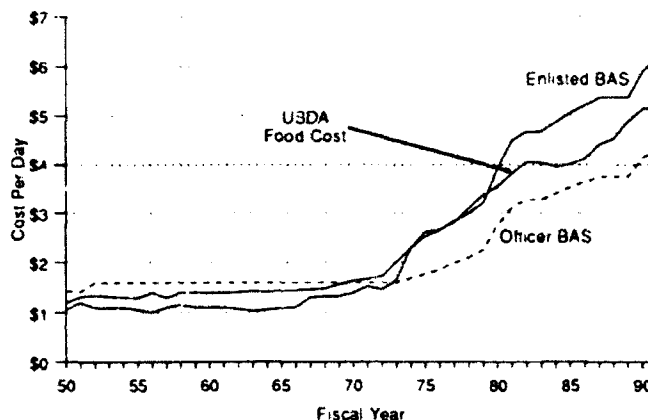


Figure 3-1. Food Cost versus BAS Rates

Numerous inequities plague the current system. All officers receive the BAS at one rate (which is less than food costs). Eligible enlisted members receive one of six rates, all of which exceed standard measures of food costs. Furthermore, none of the BAS rates equal the daily sale of meal rate (DSMR), which is the amount charged in military dining facilities.<sup>1</sup> Enlisted members who are not entitled to BAS and who choose not to eat a given meal in the dining facility forfeit its value: they either miss eating or must pay for their food elsewhere out of their basic pay. These inconsistencies have led many service members to view BAS as a compensation supplement rather than as reimbursement for their subsistence.

<sup>1</sup>For 1991, the DSMR for military dining facilities was \$4.90 per day (\$147.00 per 30-day month). This rate, set by the DoD Comptroller at the time of the pay increase, compared to a United States Department of Agriculture (USDA) moderate food plan price tag of \$166.43 per month. Neither of these amounts matched the officers' monthly BAS rate of \$129.00 or the enlisted BAS monthly rate of \$184.50 for those permitted to mess separately, \$208.20 monthly where government mess was not available, and \$276.00 monthly for emergency conditions. There are also three additional rates for enlisted members' with less than four months' service.

Desert Shield and Desert Storm highlighted some of the problems associated with the current BAS system. Termination of their BAS at the outset of Desert Shield for members deployed shrank the paychecks of those whose lives were just then being placed in jeopardy. While BAS is meant to offset the cost of feeding *the member only* when government meals are not provided, many service members and their families perceived its termination as a loss of family income. "Out of necessity, many military families have been using the BAS allowance to supplement household income to pay family living expenses."<sup>2</sup> For these families BAS constituted a significant portion of their take-home pay, as much as 22 percent for junior enlisted members. The hardship was compounded by the fact that the typical enlisted BAS (\$6.15 per day in fiscal year 1991) exceeded the DSMR (\$4.90 per day), yet the entire BAS was recouped by DoD beginning on members' deployment date.

Controversy over losing BAS during a deployment is not new. Most members lose their BAS during routine field or sea duty, resulting in the same perceived and real loss of income to service members and their families.

Desert Shield and Desert Storm also underscored the inequities resulting from the many different recoupment procedures within and among the services.<sup>3</sup> These differences in treatment of members were particularly obvious in this large-scale joint operation, causing confusion among members and an undue administrative burden on the joint staff.<sup>4</sup>

Finally, the 7<sup>th</sup> QRMC reviewed the "surcharge" levied on some members when they eat in a dining facility. Although its purpose is to recoup the member's share of the dining facility operating expenses, the current surcharge is neither an effective recoupment tool, nor is it fair. In fact, the total charge is approaching three times the cost of the meal. There are myriad exemptions from the surcharge, but members not entitled to one find use of the dining facility to be prohibitively expensive.

## RESULTS IN BRIEF

The 7<sup>th</sup> QRMC's review of the BAS system, policies, and procedures revealed several problems:

- Seven different rates: Given that the commissary charges the same amount for food bought by junior enlisted members, senior enlisted members, and officers, the rationale for different rates is questionable.

---

<sup>2</sup>Memorandum from Mr. Christopher Jehn (ASD (FM&P)) to Honorable Les Aspin (Chairman, Committee on Armed Services, House of Representatives), February 15, 1991. See also Chapter 5 in this volume on cost-of-living allowances.

<sup>3</sup> Recoupment procedures included collecting for meals consumed, collecting for all meals and reimbursing for meals missed, collecting for all meals (whether or not consumed), and collecting the total BAS.

<sup>4</sup>Message from USCINCENT, Subject: Field Ration Collections—Service Inequities, dated 191500Z Jan 91.



- No relation to food cost: BAS rates are currently adjusted based on the annual military pay raise. So long as the BAS is intended to reimburse members for their out-of-pocket food costs, it makes no sense to index the allowance to anything other than the cost of food.
- Inequities: Not only do enlisted members who draw the cash allowance have more choices, they enjoy more discretionary income because their allowance exceeds the DSMR charged in the dining facility. Officers pay considerably more than their allowance when eating in the dining facility, especially when the surcharge is levied.
- Entitlement and recoupment procedures: Policies vary significantly among and within the services.
- Complexity: Its many inconsistencies make the BAS system difficult to understand and administer.

With these problems in mind, the 7<sup>th</sup> QPMC recommends the following changes to the BAS:

- Establish a single BAS rate for all members.
- Base and index the BAS on food costs.
- Standardize entitlement and recoupment procedures.
- Eliminate the dining hall surcharge, except for TDY personnel.

The revised BAS, based solely on the cost of the U.S. Department of Agriculture's Moderate Plan diet, would be paid to all enlisted members and officers alike. Procedures for recovering the allowance from members who receive their subsistence in kind, as well as an implementation plan, are presented in the following sections.

## HISTORY OF BAS

Historically, the government has taken the position that it is obligated to feed enlisted personnel or, if subsistence in kind could not be furnished, to provide a cash substitute. Officers have historically been required to arrange for their own subsistence and generally received a cash allowance for this purpose. "Both officer and enlisted subsistence allowances were intended to be a cash equivalent of the approximate raw food cost to the Government of feeding its military personnel."<sup>5</sup>

Until 1870, the officer subsistence allowance was based on rank, with the number of rations authorized varying from two for the lowest ranking officers to 15 for general officers. Between 1870 and 1922, when a salary system operated for officers, the allowance was

---

<sup>5</sup>Department of Defense, Office of the Secretary of Defense, *Military Compensation Background Papers*, 3rd ed., (Washington, 1987), 92.

abolished. Enlisted members continued to be given their meals or a cash substitute. The Joint Service Pay Act of June 10, 1922 reestablished the subsistence allowance for officers. Those without dependents were entitled to one subsistence ration, and those with dependents could receive up to three rations, depending on rank.

The Career Compensation Act of 1949, based on the work of the Hook Commission, created the BAS system essentially as it exists today. The Hook Commission upheld the inherent obligation of the government to feed enlisted personnel and recommended that an allowance in lieu of meals should be related to actual food costs.<sup>6</sup> From 1951 to 1974, DoD administratively adjusted the daily commuted ration rate to approximate the raw food cost.<sup>7</sup> The officer rate was adjusted once in 1952 and remained at that level until 1974.

In 1974, Congress suspended the practice of putting the entire military pay increase into basic pay. It authorized an even distribution of the pay increase across all three cash elements of Regular Military Compensation: basic pay, BAS, and BAQ. The DoD Appropriation Authorization Act of 1977 authorized the President to distribute the military pay increase to the three elements on an other-than-equal basis. In September 1980, Congress authorized a special 10 percent increase for all BAS rates to bring them in closer alignment with food costs; however, the across-the-board 11.7 percent military pay increase in October 1980 severed that just-established link (see Figure 3-1). Since 1980, there have been no adjustments to BAS rates based on food costs; instead, BAS rates have increased by the same percentage as increases to basic pay.<sup>8</sup> The result is that today BAS has lost its relation to food costs.

### Foreign Military Service Practices

The 7<sup>th</sup> QRMCM reviewed the military compensation systems of a number of countries (see 7<sup>th</sup> QRMCM Staff Analyses, GSP A—*Foreign Military Compensation Systems Review*). None of the three English-speaking countries with all-volunteer forces (Canada, the United Kingdom, and Australia) pays a separate allowance for subsistence. In these countries, service members pay outright for their food or their salaries are debited a government-subsidized rate for meals eaten in government dining facilities.<sup>9</sup> Furthermore, all three governments provide meals as a cost of doing business when service members are deployed to the field or at sea.

---

<sup>6</sup>The officer rate was based on the cost of eating at the officers' mess. The enlisted separate-mess rate was based on the cost to feed the member in the dining facility. Two other enlisted rates were based on civilian food costs in the local area (rations in kind not available) and for unusual high-cost areas (emergency conditions). See U.S., Congress, House of Representatives, Subcommittee of the Committee on Armed Services, *Career Compensation for the Uniformed Services*, H. Report 2553, 81st Congress, 1st Session, 1949.

<sup>7</sup>Daily commuted ration rate is the rate for those enlisted members permitted to mess separately.

<sup>8</sup>Department of Defense, Office of the Secretary of Defense, *Military Compensation Background Papers* (Draft), 4th ed., (Washington, 1990), 35.

<sup>9</sup>All members of the United Kingdom Armed Forces, living in barracks, are charged for rations by a monthly standard deduction from their pay.

### Prior Major Studies

The 3rd QRMC conducted the last major review of BAS in 1976. They concurred with the precedent that the government is responsible for feeding enlisted personnel. They proposed, however, that the allowance should be paid when it is advantageous to both the member and the government. They concluded that BAS was not equitable and recommended that its annual adjustment be based on the cost of food.<sup>10</sup> Congress made one adjustment in 1980 to align the allowance with food costs, but continued thereafter to link BAS increases with the annual basic pay raise.

From 1975 to 1980, the U.S. Army Natick Research and Development Command conducted a series of studies to determine the effects on dining facility usage of paying BAS to all members and allowing them discretion to choose where they would eat. These studies concluded that former meal card holders used the dining facility less often, and some experienced deterioration in their nutritional intake. However, these studies were limited in scope, and the results reflected the responses of the early all-volunteer force, whose characteristics differ from today's service members. See Appendix A for a summary of the studies.

### Service Policies and Procedures

Policies and procedures regarding BAS vary significantly among and within the services.<sup>11</sup> The percent of the enlisted force drawing BAS ranges from a high of 86 percent for the Air Force to a low of 51 percent for the Marine Corps. The DoD average is 67 percent, considerably higher than before the advent of the all-volunteer force. This is because today's enlisted member is more apt to be older and married and, therefore, more likely to be allowed to eat at home. In fiscal year 1990, DoD spent \$2.8 billion on the BAS versus \$1 billion on food for the members it fed.

As previously mentioned, differing procedures for recovering the cost of field and sea meals create inconsistencies in the amount of BAS recouped from members. This leads to inequities among members and an undue administrative burden on units, particularly in joint operations. Another inconsistency involves the policy of recouping enlisted BAS amounts through stop-and-start pay actions, whereas officer BAS is recovered through collection meal-by-meal debit procedures. Thus, an officer's Leave and Earnings Statement (LES) always shows the subsistence allowance in the income section and, when appropriate, a deduction for meals eaten on duty in a debit column. An enlisted member's LES reflects stop-and-restart actions for BAS, reducing the allowance or eliminating it entirely from the income

---

<sup>10</sup>Department of Defense, Office of the Secretary of Defense, Third Quadrennial Review of Military Compensation (3rd QRMC), *Basic Allowance for Subsistence* (staff paper), (Washington, 1976), 12.

<sup>11</sup>Individual meetings of 7th QRMC representatives and compensation and food service representatives from the Army, Navy, Air Force, Marine Corps and Coast Guard held from April 18-23, 1991 (see Appendix B).

section. This reduces the visibility of the allowance for the enlisted member and multiplies the number of administrative transactions that the unit must execute.

The absentee rate (percent of meals voluntarily missed by members ineligible for the BAS) averages about 44 percent for all the services (see Figure 3-2). Members who miss these meals are not reimbursed, whereas members who receive the cash allowance have the choice of how to spend it. Each service takes its absentee rate into account during the budget process and only budgets enough money for meals projected to be consumed.

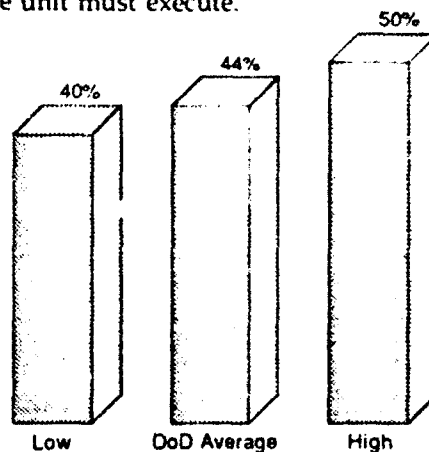


Figure 3-2. Absentee Rate for Military Messes

## BAS PROPOSAL

### A 'Fixed' Allowance

The 7<sup>th</sup> QRMC recommends that there be one BAS rate for enlisted members and officers, based on and adjusted by current food costs. The DSMR would be set equal to the daily BAS rate, making the value of meals the same for all members, whether entitled to the cash allowance or eating government-provided meals. This single rate would eliminate several inequities, simplify system administration, and make it more understandable.

There are currently two sets of entitlement and recoupment procedures—one for officers and one for enlisted. The 7<sup>th</sup> QRMC proposes that DoD extend the officer procedures to all members. Services would continue, as a matter of policy, to define their subsistence-in-kind population. All members would receive BAS, with the allowance returned to the government by those members required to eat in the dining facility. The allowance would appear as income on their LES and be collected as a debit. This would increase the visibility of BAS, simplify the administrative transactions associated with field duty, and reduce the perceived inequity between eligible and ineligible members. Further, in light of the trend toward joint operations, the 7<sup>th</sup> QRMC proposes that the services establish standardized procedures for collecting BAS during deployments.

### Food Cost Indices

The level of the subsistence allowance should accurately reflect the cost for an individual member to purchase and prepare his or her own food. Two current government indices that measure food costs are the United States Department of Agriculture (USDA) food plans and the military Basic Daily Food Allowance (BDFA) (see Figure 3-3).

The BDFA, which is used to estimate per-person food costs for military dining facilities, is not an appropriate basis for the subsistence allowance. The BDFA captures how much it costs the government to buy food in bulk, excluding perishable items for which dining facilities receive a supplement. No individual could readily purchase food at these favorable rates.

The USDA food plans are more a realistic basis for calculating member food costs. These plans establish the government standards for dietary and nutritional requirements at specified nationwide food consumption and expenditure levels. The costs are based primarily on food cooked at home, but also factor in some meals eaten away from home. The four cost levels range from Thrift, which is the basis for determining the food stamp program, to Liberal. All four levels meet the same nutritional standards;

but they vary in cost by the amount included for certain foods, such as higher-quality red meats. The 7<sup>th</sup> QRMC finds that the Moderate meal plan for males, age 20-50, best reflects the overall military population in demographic and spending patterns. This USDA food plan accurately reflects the cost of purchasing and preparing food for members who do not eat in a military dining facility. It is an appropriate basis for setting the BAS rate. USDA food plans are discussed in detail in Appendix C.

### Benefits

Establishing a single BAS and DSMR rate, based on the USDA Moderate food plan, would generate a number of benefits. The system would be less complex and more understandable. Members would know that their allowance is based on real food costs, and that all of them are charged the same amount when meals are provided. A single BAS rate would eliminate one glaring inequity by acknowledging that it costs officers and enlisted members the same amount to purchase their own food. Meals would "cost" the same, whether eaten in the dining facility, in the field, at sea, or on the economy. Finally, with the USDA rate paid out in allowances likely to be higher than the government's cost of buying

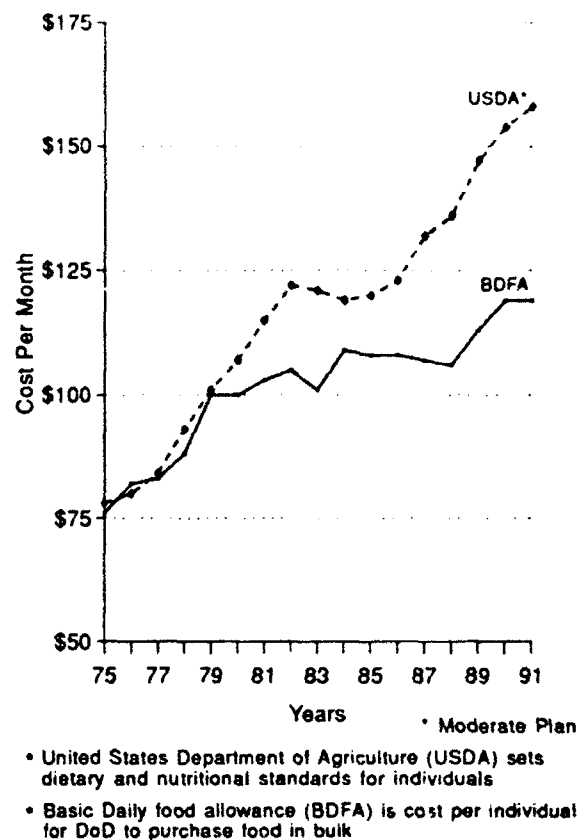


Figure 3-3. Food Cost Indices

food in bulk, the difference in money collected could be used to offset some operating expenses, improve dining facilities, or upgrade the food served.

### **Implementation Alternatives**

The 7<sup>th</sup> QRMC considered a number of methods to set BAS equal to USDA food cost with a goal of holding members harmless. In 1994, the first year that such a change could be made, the enlisted BAS is projected to be \$207.90; the officer BAS, \$145.40; and the USDA food cost, \$185.60. Thus, the implementation method must reduce the enlisted BAS and increase the officer BAS. The 7<sup>th</sup> QRMC concluded that the best method would be to put the differential between BAS and the USDA food cost plus the associated federal tax advantage into basic pay for enlisted members, while reducing basic pay by the difference for officers. Implementation should begin in conjunction with a basic pay raise so that all members would still experience an increase in basic pay.

Other methods of setting the BAS rate to the USDA food cost were considered. Freezing enlisted BAS until the USDA food cost catches up was rejected. Enlisted members would lose money over several years unless the annual projected increases were added to basic pay. While the amount of loss, the Military Pay Index (MPI) times BAS, would be relatively small, the 7<sup>th</sup> QRMC does not feel that members should lose money as DoD takes steps to fix the distorted BAS rates.

Putting the differential into the housing allowance was also considered and rejected. Some members, who draw BAQ but not BAS, would receive a windfall profit; while others, who draw BAS but not BAQ, would lose money. Although this shift between allowances could help to restore the appropriate housing absorption level for members, it would ultimately be criticized for taking cash from enlisted members to lower the absorption level for officers.

Thus, the 7<sup>th</sup> QRMC concluded that the most equitable and understandable method would simply move the money to or from the members' basic pay. However, several drag-alongs must be considered when money is added to or taken from basic pay—tax consequences and retirement accrual being the two most significant. Appendix D discusses these issues in greater detail.

**Unconstrained Method.** The most straightforward, and most costly, method for making the transition to a BAS rate equal to USDA food costs would be to add the difference between the two rates and the federal tax advantage to basic pay for all enlisted members and subtract the difference for all officers. The estimated additional cost in 1994 would be \$316 million. This method meets our criteria: BAS would be set equal to the USDA food cost, and members would be held harmless in terms of current dollars. However, several interim steps can and should be taken, not only to reduce the cost, but also to treat members fairly.

**Phase-in Method for New and Junior Enlisted Personnel.** DoD furnishes meals for most members in their first and second years of service, who therefore do not draw BAS. For these

members, an increase in basic pay resulting from a decrease in BAS would be a windfall.<sup>12</sup> To minimize such gains, the 7<sup>th</sup> QRMCM recommends putting no additional dollars into basic pay for members with less than two years of service, one-third of the differential for those with two years of service, two-thirds for those with three years of service, and the full differential for members with four or more years of service. This procedure would reduce the estimated cost for BAS reform from \$316 million in 1994 to \$123 million.

**Balancing Current and Deferred Income.** Another flaw with an unconstrained move towards the recommended BAS is its impact on retirement earnings: retirement-eligible enlisted members would experience an increase in their retirement pay owing to such an "unearned" increase in basic pay, while officers would suffer a decrease. Hence, the 7<sup>th</sup> QRMCM recommends limiting the windfall retirement gain experienced by the enlisted force and the retirement loss experienced by the officer force.

As described in the 7<sup>th</sup> QRMCM Staff Analyses, MTS 1—*Compensation Structure*, a member's decision to remain in the service is based in part on his expectation of life stream earnings. When the BAS differential is moved from BAS to basic pay, as shown in Figure 3-4, the amount of deferred compensation will increase. Therefore, members should be willing to forego some current income in anticipation of this future gain.

Conversely, as shown in Figure 3-5, when the differential is moved from basic pay to BAS, deferred income will decline. This loss can be offset by an increase in current income.

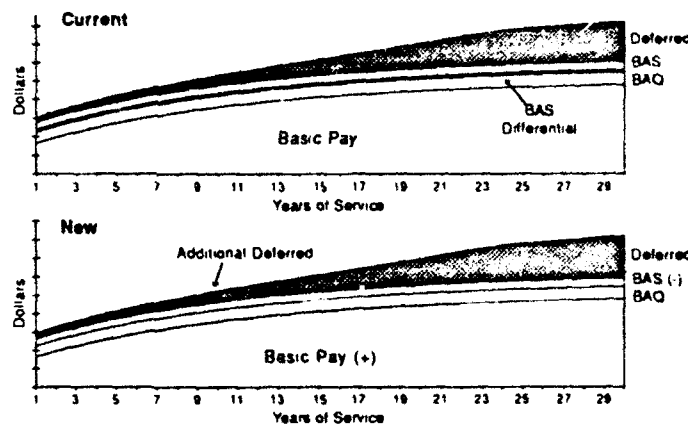


Figure 3-4. Notional Problem: Fixing BAS as an Allowance (Enlisted)

The 7<sup>th</sup> QRMCM used an ACOL model to measure the effect of this swapping of deferred and current income (see 7<sup>th</sup> QRMCM Staff Analyses, GSP C—*Modeling, Logic, and Theory*). The amounts moved into, or taken from, basic pay were adjusted until the retention rates derived in ACOL remained unchanged.<sup>13</sup> This procedure, in concert with the phase-in method described above, would reduce the estimated cost of fixing BAS to \$72 million in 1994.

<sup>12</sup>This discussion applies to the enlisted force only. The officer force would be treated as in the unconstrained case.

<sup>13</sup>This implies that, on average, members will be equally well off.

## Summary

The cost of fixing BAS as an allowance can be reduced to \$72 million while holding current members harmless. The key to the cost savings of \$244 million over the unconstrained method is balancing current and deferred income to prevent windfall gains or undeserved losses for members. Balancing current and deferred income would not only reduce the cost to the government, but also treat members equitably. Appendix D develops these alternatives in depth.

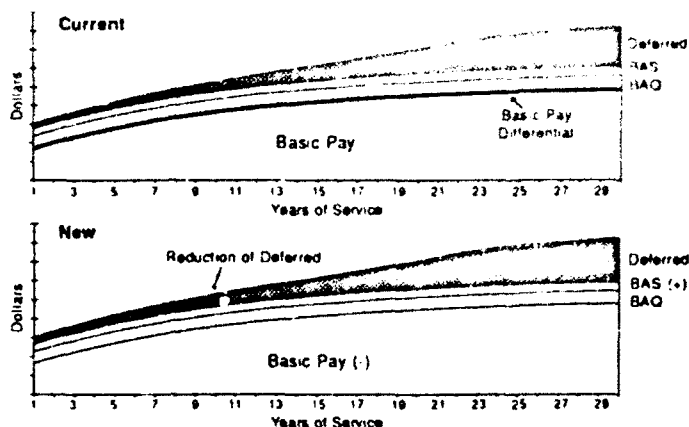


Figure 3-5. Notional Problem: Fixing BAS as an Allowance (Officers)

## OTHER ISSUES

### Field and Sea Meals

The government pays BAS to service members when it does not feed them. Therefore, as a matter of routine, the government provides food to members during field and sea duty and simultaneously suspends payment of BAS. As noted earlier, the termination of BAS for members deployed drew a great deal of attention at the outset of Operation Desert Shield. "While the rationale behind dropping BAS for members when they are on sea duty or field duty is analytically understandable, it is an irritant because the loss in cash income, while serving in arduous circumstances, appears to be out of phase with the duty being performed."<sup>14</sup> The perceived problem was compounded by the fact that the BAS rate, hence the amount forfeited, was greater for enlisted members than if the meals had been paid for individually.

The fixed BAS, as recommended by the 7<sup>th</sup> QRMC, will help to resolve the problem. A single rate—paid to all members, based on an objective index of food costs, and equal to the government's charge for food served in military messes—will make the process of collecting for field and sea meals more equitable, understandable, and easier to administer. However, it will not eliminate the requirement for members to pay for these meals. The 7<sup>th</sup> QRMC looked further into this issue—that is, should the government charge members for field and sea meals?

<sup>14</sup>U.S. Senate, Senator John Glenn speaking for the Operation Desert Shield bill S. 3026, *Congressional Record*, September 11, 1990, S 12834.



There is precedence in the practices of a number of allied foreign military services for not charging members for field and sea meals. In particular, the United Kingdom, Canada, and Australia, with all-volunteer forces, provide food to their service members during field and sea deployments as a cost of doing business.<sup>15</sup> However, these governments do not provide food in kind or pay subsistence allowances in nondeployment circumstances. Rather, service members are required to pay for food, other than field and sea meals, out of their salaries.

The 7<sup>th</sup> QRMF finds that paying BAS to deployed members as well as providing subsistence in kind would, in general, contradict the intent of the allowance by giving members double compensation—their meals and reimbursement for that very food. Furthermore, funding field and sea meals would be costly. Table 3-1 shows the approximate cost of three potential options for funding field and sea meals: field meals only, field and at-sea meals,<sup>16</sup> and contingency operation meals only.<sup>17</sup>

Table 3-1. Cost of funding field and sea meals

Option	Total Cost (\$M)
Field and at sea	366
Field only	155
Contingency*	260
*The size of the force and duration of contingency operations are unpredictable. This example was constructed on the basis of Desert Shield/Desert Storm specifications: an average force of 250,000 persons for six months.	

Clearly, it would be very expensive to fund all field and sea meals. Further, the food provided aboard ship and in many field operation locations is equivalent or close to the quality of the food provided in a first-rate garrison dining facility. Combat rations,<sup>18</sup> particularly when eaten in a combat environment, are an entirely different story; they are in no way equivalent. The combat field meal is often cold, dehydrated, and eaten while on the move. Just as the government provides ammunition for the weapons and fuel for combat vehicles, it would be reasonable to provide food for the soldier in a combat environment.

The current law leaves room for some Presidential discretion, in that it does not precisely define field and sea duty. A specific definition of routine field and sea duty or a change in the law could allow the funding of field and sea meals under special circumstances such as

<sup>15</sup>See GSP A—*Foreign Military Compensation Systems Review*.

<sup>16</sup>*Field and at-sea* refers to instances when a member is away from home station and not on travel status or, in the case of the sea services, when a member is assigned to a ship and that ship is under way or out of its home port.

<sup>17</sup>For the purposes of this chapter, contingency operations are those designated as such by the Secretary of Defense. They generally occur when hostile fire pay begins and take place in the same geographical area as that prescribed for hostile fire pay. This category is considered separately because members generally know when most field and at-sea exercises are scheduled and can budget accordingly. However, the exact starting date and duration of contingency operations are rarely foreseeable.

<sup>18</sup>Meals Ready to Eat (MREs) or "B" rations (canned versus fresh food).

Operations Desert Shield and Desert Storm. Members and their families would not then be faced with a pay cut at the critical time of an unexpected deployment where the member is placed in danger.

The 7<sup>th</sup> QRMC recommends that the government fund meals during such contingency operations.

### Surcharge

The surcharge in government-funded facilities was established as a means to recover an individual's share of operating expenses. The current surcharge, established in 1981, was collected from officers, civilians, and enlisted members on TDY. In 1989, the law was rewritten and included collection of the surcharge from all enlisted members. The Secretary of Defense, however, has the authority to exempt members from the requirement to pay the surcharge.<sup>19</sup> The current list (Appendix E), in practice, exempts all enlisted members except those on TDY.

Because there are so many exemptions, the surcharge is ineffective in recouping operating expenses for the government's dining facilities. The surcharge currently recoups \$32 million, less than 3 percent of the \$1.5 billion operating expenses.

In January 1991, the surcharge increased from \$5.40, the amount in effect since 1981, to \$7.85 per day. In November 1991, it went up again to \$9.40 per day. Initial computations for 1992 indicate that an effective surcharge would be over \$11 per day, more than double the per-day cost of meals that is now \$4.90 (see Figure 3-6). Many officers, who as a group are subject to the surcharge, avoid eating in the dining facilities whenever possible because of the exorbitant rate. Hence, key supervisors are discouraged from eating with their troops.

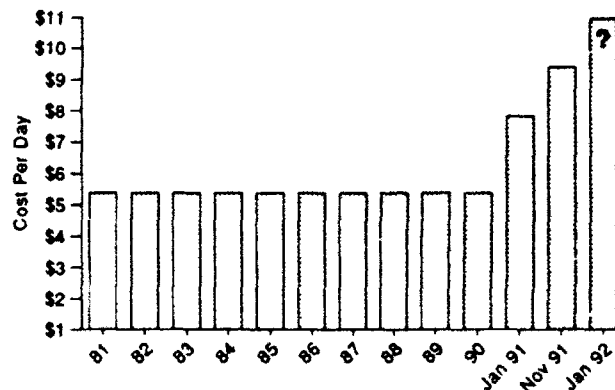


Figure 3-6. Surcharge Rates

The 7<sup>th</sup> QRMC finds that the surcharge is inequitable and serves little useful purpose. We recommend that the Secretary of Defense exempt all military members from paying the

<sup>19</sup>Title 37, United States Code, *Pay and Allowances of the Uniformed Services*, as amended through December 31, 1990, section 402, para. (e)(1), 70.

surcharge, with one exception: temporary duty personnel. This exemption would effect the necessary transfer of funds from the permanent duty station to the temporary duty station.<sup>20</sup>

#### SUMMARY OF FINDINGS AND RECOMMENDATIONS

The 7<sup>th</sup> QRMC finds that the Basic Allowance for Subsistence has drifted away from its intended clear relation to food costs, diminishing its credibility and effectiveness. Entitlement and recoupment policies vary widely, and numerous inequities exist within the current system. The 7<sup>th</sup> QRMC recommends establishing a single BAS for all members based on and adjusted by food costs. It further recommends paying BAS to all members, standardizing collection procedures, and eliminating the surcharge—except for TDY personnel.

---

<sup>20</sup>Support of transient personnel is not included in an installation's operating budget. Reimbursement of the host facility, through temporary duty funding, is the established, viable method for ensuring the host can meet the needs of a fluctuating, transient population. While the daily surcharge for one member might seem negligible, major training installations depend on this transfer of funds to successfully support the large numbers of personnel who are temporarily assigned.

## ALLOWANCES

### CHAPTER 4—HOUSING ALLOWANCES

#### INTRODUCTION

Does the Department of Defense (DoD) provide effective, equitable housing allowances to its members residing off-base in the United States? Consider the following case:

- A married E-4 assigned to Fort Polk, LA, receives a monthly housing allowance (HA) of \$341. Like most E-4s, and civilians at comparable income levels, this member lives in a two-bedroom apartment. Near Fort Polk, such a rental costs \$413 per month.
- Upon reassignment to Hanscom AFB, MA, the E-4 discovers that his monthly HA has increased to \$700. However, a two-bedroom apartment near his new duty location that is comparable to the Fort Polk residence rents for \$951.

The E-4 assigned to Hanscom faces a dilemma: either step down to a lower standard of housing, or make the financial sacrifice necessary to obtain the same sort of housing enjoyed in Fort Polk. The financial sacrifice is considerable—the HA will cover only \$8,400 of his \$11,412 in annual rental expenses. Thus, the E-4 would have to spend \$3,012 of the remaining \$16,347 of his Regular Military Compensation (RMC) (basic pay + Basic Allowance for Subsistence (BAS)) on housing. What are the implications of this situation?

It seems likely that the morale and career commitment of the E-4 at Hanscom AFB will suffer. Articles and viewpoints expressed in recent service newspapers testify to the importance that military members place on housing. In addition, most of the compensation concerns expressed by service members to the 7<sup>th</sup> QRMC involved housing allowance levels. This is by no means a new issue: the 1985 DoD Officer/Enlisted Survey found that over one-third of all enlisted members complained of difficulties in obtaining off-base housing.

The 7<sup>th</sup> QRMC reviewed the two housing allowances now provided to members serving within the United States: the Basic Allowance for Quarters (BAQ) and the Variable Housing Allowance (VHA). The QRMC undertook this review for three reasons, the most important one illustrated in the example above: *housing allowances comprise the largest share of the total allowance budget, and thus have a significant impact on the well-being of service members.* A fundamental review of the military compensation system would not be complete without a comprehensive study of this major part of regular military compensation.

Second, a letter from the Honorable Thomas S. Foley, Speaker of the House of Representatives, May 17, 1990, instructed the Secretary of Defense to "review the housing

allowance system for military personnel and to submit a comprehensive legislative proposal that provides for an equitable housing allowance system for all personnel.<sup>1</sup> In response, the *Joint Services Housing Allowance Study* (JSHAS) was published in November 1991. The Assistant Secretary of Defense (Force Management and Personnel) (ASD (FM&P)) tasked the 7<sup>th</sup> QRMC to review one of the JSHAS's recommendations—namely, the adoption of the Fair Market Rent, or some alternative measure, as a monetary floor for the housing allowances.

Third, the Navy and Coast Guard suggested that the QRMC review the housing allowance system in response to a memorandum from the ASD (FM&P), dated January 22, 1990.

The 7<sup>th</sup> QRMC identified three areas where improvements could be made to DoD's housing allowance system:

- Rate-setting method
- Housing allowance floor
- 50 percent offset.

Following a background review, these three areas are discussed in detail in the central sections of this chapter. A final substantive section proposes an alternative method for computing housing allowances that addresses identified problem areas, followed by a summary of findings and recommendations.

### Results in Brief

This chapter recommends that DoD pursue three major objectives with respect to housing allowances in the United States:

- Objective 1: Housing allowances should be sufficient to procure adequate housing.<sup>2</sup>
- Objective 2: Reassigned service members should suffer no financial harm as a consequence of housing price variations.
- Objective 3: The hierarchy of housing allowance rates should enable members to rent housing comparable to that occupied by civilians at similar income levels.

DoD currently surveys members' housing expenditures to set local housing allowance rates. This *internal market* approach contains several inherent weaknesses, and as a whole,

---

<sup>1</sup>*Joint Services Housing Allowance Study*, November 91, B-2.

<sup>2</sup>Adequacy can be defined in terms of building structure, space, security, and amenities. Housing and Urban Development (HUD) has an adequacy standard for Fair Market Rent (FMR) computations that is mainly related to the physical structure of a dwelling. The 7<sup>th</sup> QRMC makes no attempt to define adequacy in this manner, rather we assume that housing adequacy is implied in a rental unit that is both typical and appropriate for a given income level.

falls short of the objectives outlined above. For one thing, it is difficult to separate cause and effect: members' survey data drive housing allowance rates, which, in turn, influence members' housing expenditures. Lacking any external measure of local housing cost to calibrate the system, housing allowance rates reflect only what DoD members spend on housing. As a result, current housing allowance rates buy more housing in low-cost than in high-cost areas.

Furthermore, the distribution of military personnel in the United States undermines the validity of a members' survey. Most service members are assigned to a few dozen large military installations. However, there are many more duty locations with small DoD populations—too small to affect overall expenditure patterns deduced from members' survey data.

In the long run, both DoD and service members would be better served by a rate-setting method focused on the actual price of housing in different locations. Allowances based on such housing price data would ensure both adequacy and consistency as a member moves about. Thus, objective price data would fulfill DoD's near-term need to provide adequate housing for its junior members—that is, a housing allowance floor—and in the long term distribute housing allowance funds more equitably.

The government now recoups a portion of a member's housing allowance that is not consumed on housing. This policy, known as the 50 percent offset, undermines members' welfare and is not cost-effective. Both DoD and service members would be better off with a system that permitted individuals to allocate their compensation freely.

## **BACKGROUND**

DoD pays almost \$6 billion a year in housing allowances to service members assigned in the United States (including Alaska and Hawaii). The BAQ and the VHA, the two components of U.S. housing allowances, are nontaxable. All service members receive a BAQ. They may surrender this in exchange for housing on a DoD installation, or they may spend it as they choose for outside housing.

Most members living in the U.S., but not on installations, also receive a VHA to compensate them for housing costs in their area. An offset policy requires that if they fail to spend the full VHA on housing, DoD withholds half the difference between it and their actual housing cost.

### **Basic Allowance for Quarters**

The Joint Service Pay Act of 1922 made major changes in the way military personnel were compensated, and essentially established the current system of basic pay and allowances. The Act recognized the family as a factor in providing adequate allowances by establishing different housing reimbursement levels for members with dependents than for those without.

This housing reimbursement eventually evolved into the BAQ, as defined by the Career Compensation Act of 1949.

Military housing allowances were directly tied to private sector housing costs until 1972. In 1963, BAQ was increased to the Federal Housing Administration (FHA) median for housing expenses of comparable income groups. Then, in 1971, BAQ increased to approximately 85 percent of the FHA median nationwide housing expenses of comparable income groups. This was essentially the last time BAQ approximated private sector housing expenses. Since 1974, BAQ has increased annually by the basic military pay raise percentage, which has typically lagged increases in housing costs.<sup>3</sup> Thus, it was not until establishment of the VHA in 1980 that total housing allowances, BAQ plus VHA, again approximated housing costs.

#### **VHA and the 50 percent Offset**

The Military Personnel and Compensation Amendment of 1980 created VHA, under which a member of the uniformed services entitled to BAQ was also entitled to the new allowance whenever assigned to duty in any part of the United States defined as a high housing cost area.<sup>4</sup> The 1985 DoD Authorization Act changed the intent of VHA such that the aggregate housing allowance would reimburse all but 15 percent of the national median housing cost for the member's pay grade and dependency status.

The 1986 DoD Authorization Act established the 50 percent *offset* provision to reduce *windfalls* that some members realized as a result of an overly generous housing allowance.<sup>5</sup> Under the offset provision, when a member's total housing allowance (BAQ plus VHA) exceeds his housing expenses, the member's VHA is reduced by an amount equal to 50 percent of the difference, but not more than the member's total VHA.

#### **Declining Value of Housing Allowances**

In 1985, BAQ was set at 65 percent of projected national median housing cost for each pay grade and dependency status. For funding reasons, it never achieved this goal and, in fact, between 1985 and 1989, its real value declined in proportion to housing costs.<sup>6</sup>

---

<sup>3</sup>In 1976, 1977, and again in 1989, BAQ increased slightly more than overall regular military compensation. This "reallocation" was an attempt to make BAQ more nearly cover off-base housing costs.

<sup>4</sup>Initially, the VHA program did not apply to members in Alaska and Hawaii. Members in these areas received the Overseas Housing Allowance until the 1986 DoD Authorization Act extended the VHA program to those states. Department of Defense, Office of the Secretary of Defense, *Military Compensation Background Papers*, (Washington, 1987), 69.

<sup>5</sup>Senate Report No. 99-41 (Committee on Armed Services), 191, accompanying S. 1029, 99th Congress, 1st Session (1985). Also see Senate Report No. 99-118 (Committee of Conference), 426, and House Report No. 99-235 (Committee of Conference), 426, accompanying S. 1160, 99th Congress, 1st Session (1985).

<sup>6</sup>*Joint Services Housing Allowance Study*, 3-8.

Figure 4-1 illustrates the erosion of housing allowance purchasing power. In 1981, members typically paid out of pocket, or absorbed, 10.3 percent of their off-base housing costs. Over the past decade this absorption amount has nearly doubled, rising to the 1992 level of over 20 percent.

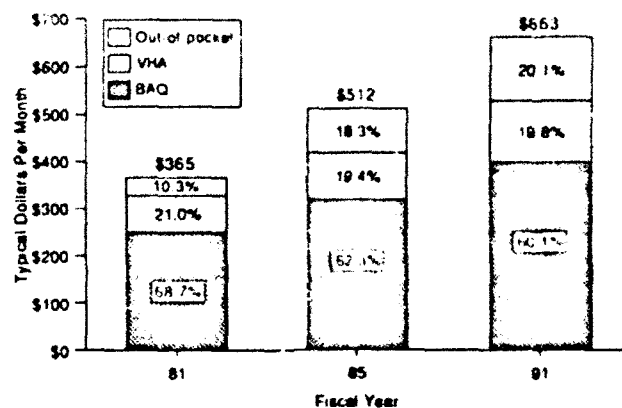


Figure 4-1. Absorption Levels 1981-1990

It must be noted that Reserve members have experienced an even greater erosion in the value of their housing allowance. Reserve members receive housing allowances only while on active duty. For duty periods of 20 or more consecutive weeks, the Reserve member receives both BAQ and VHA. Most duty periods, however, are less than 20 weeks, during which the reservist receives BAQ only.<sup>7</sup> Because BAQ now covers only 58 percent of the national median housing cost (NMHC), the housing allowance received by most Reserve members on active duty has eroded in value by 30 percent during the past two decades.

#### Joint Services Housing Allowance Study

In November, 1991, the JSHAS made recommendations in nine major areas; the JSHAS Executive Summary is at Appendix F. The three most notable JSHAS proposals follow:

- Establish a single variable HA for the United States, including Alaska and Hawaii, such that local HA equals local median housing cost minus 15 percent of national median housing cost.
- Adjust the HA annually in accordance with the rental component of the Consumer Price Index (CPI).
- Adopt the Fair Market Rent (FMR), or an alternative external measure of rental unit price, as a floor-level allowance to replace the computed HA when HA would otherwise fall below the floor.<sup>8</sup>

<sup>7</sup>Reservists with no dependents who are on active duty for less than 20 weeks are often not entitled to any housing allowance due to assignment to government quarters or qualification for per diem payments.

<sup>8</sup>The floor-level allowance, or floor, is designed to insure that service members receive a housing allowance commensurate with adequate housing rentals. Under the JSHAS plan, the member would receive the maximum of current HA or the floor. The JSHAS also stipulated that a member's HA should be at least 60 percent of National Median Housing Cost (NMHC).



## RATE-SETTING METHODOLOGY

This section opens with synopses of two recently completed studies concerning DoD's current method for computing housing allowances. The crucial research question is whether DoD adequately compensates members for housing price variations. The 7<sup>th</sup> QRMC's comparison of military housing allowances with housing price data provides insight into the effectiveness of the rate-setting methodology.

### Recent Housing Allowance Studies

In *Housing Demand and Department of Defense Policy on Housing Allowances*,<sup>9</sup> Camm argues that housing allowances derived from expenditure data will not hold members harmless as they move about the country to fill their assignments:

An important distinction exists between the *price* of housing and housing *expenditures*: Suppose that we could identify the typical amount the DoD households spend on housing in each housing area and then rank areas from low-expense to high-expense areas. If we could also measure the housing price level in each area, we would find that (a) the housing price level is low in low-expense areas and high in high-expense areas and (b) as we move from low- to high-expense areas, the price level rises more rapidly than the level of expenditure. Such a comparison correctly suggests that DoD households are not adequately compensated as the housing price level rises from location to location.<sup>10</sup>

The implication of Camm's argument is that when a member relocates from a low cost area to a high housing cost area, that member will typically pay more for less house.<sup>11</sup> The

---

<sup>9</sup>Frank Camm, *Housing Demand and Department of Defense Policy on Housing Allowances*, RAND, R-3865-FMP, September 1990.

<sup>10</sup>*Ibid.*, 18.

<sup>11</sup>A simple example borrowed from Mr. Camm's paper illustrates this point: Suppose a household currently living in Norfolk, VA, spends \$900 a month to rent a home. DoD transfers the household to Washington, DC. A comparable home, similarly located in the Washington area, would cost \$1,800 a month to rent. Because the higher price of housing in Washington will discourage the household from consuming as much housing as it did in Norfolk, we can confidently predict that the household will spend less than \$1,800 on a home in Washington. Suppose it spends \$1,200. What does this reduction imply?

The household spends more in Washington for less house. It does so because the price of housing is higher in Washington than in Norfolk. We can say this a bit more precisely by remembering that, for any good or service, the following identity must hold:

$$\text{Expenditure} = \text{Price} \times \text{Quantity}$$

In the case of housing, price is the cost of a *standard house*. Expenditure equals price if one rents the standard house. Expenditure is more than price if one rents an above-standard house, and lower than price if one rents a below-standard house. Suppose that the household pays \$1 a unit for 900 units of housing in Norfolk. Suppose also that housing in Washington cost \$2 a unit. In this case, the \$1,200 only buys 600 units of housing in Washington—more is spent on less house.

converse will hold true when moving to a lower-cost area: more house will be acquired for less money.<sup>12</sup>

The current rate-setting methodology involves measuring members' rental expenditures, or rental equivalent for homeowners. The expenditure data are then adjusted based on local housing characteristics to determine the *price* of housing in each Military Housing Area (MHA). Does this methodology provide a true measure of *price*, or is *expenditure* behavior alone being reflected when housing allowance rates are computed? As Camm suggests, if *price* is not being adequately measured, the housing allowance rates will tend to be too high in low-cost areas and too low in high-cost areas.

The second study, the *Joint Services Housing Allowance Study*, offers compelling evidence that housing allowance rates in areas with rapidly rising housing costs lost ground from 1984 to 1988.<sup>13</sup> During the same period, housing allowance rates in areas with slowly rising housing costs actually increased more than local housing costs. The JSHAS measured percentage changes in the FMRs<sup>14</sup> and the local median housing cost (LMHC)<sup>15</sup> for all 332 MHAs. The percentage change in the FMRs placed an MHA into one of three groups: slow, moderate, or rapidly rising housing cost. Figure 4-2 compares the percentage increase in military housing expenditures with increases in local FMRs for the three categories.

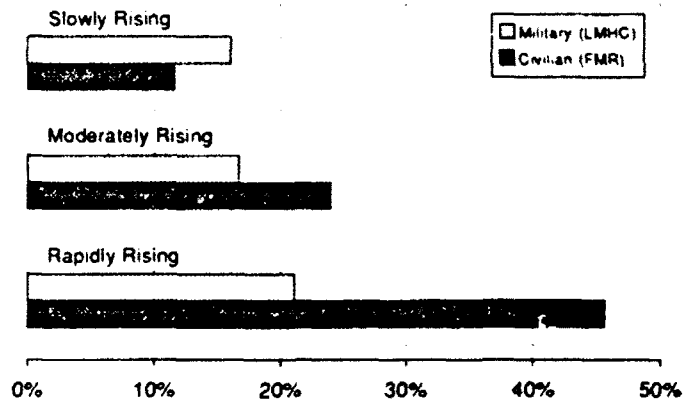


Figure 4-2. Growth of Civilian vs. Military Housing Costs

<sup>12</sup>The behavior illustrated in the previous example is evidenced in a comparison of rental unit size, based on the number of bedrooms, for E-5s with dependents in four low-cost, and four high-cost MHAs: 44 percent of the E-5s in the low-cost MHAs rent units with three or more bedrooms, as compared to only 23 percent in the high-cost MHAs. The total housing allowance for an E-5 with dependents in the four low-cost MHAs is \$376 per month (the BAQ amount), and averages over \$740 dollars in the four high-cost MHAs. This establishes two tendencies: (1) E-5s spend more on housing in high-cost MHAs, and (2) E-5s rent less house in high-cost MHAs. (Source: 1991 DoD VHA Survey.)

<sup>13</sup>*Joint Services Housing Allowance Study*, 6-17 to 6-18.

<sup>14</sup>In many locations the FMR is a somewhat broad measure and as such may not reflect some of the nuances of localized housing markets. However, as an aggregate measure, FMRs seem a reasonable approximation of rental price trends. (For further discussion on FMRs, see the Housing Allowance Floor section of this report.)

<sup>15</sup>LMHCs are calculated from VHA survey data. Housing allowances are based upon LMHC minus the current specified absorption amount.

For the areas with the slowest housing cost growth, the mean increase in DoD local median housing costs was 16.1 percent. The mean increase in the FMR was only 11.6 percent for the same period, suggesting that members in these areas have been gaining relative to the increase in housing price. Conversely, the data show that members in areas with the greatest housing cost growth have lost ground over the same period. The mean increase in local median housing costs for the high-growth group was 21.1 percent, while the corresponding increase in the FMRs was 45.9 percent.

To the extent that areas with rapidly rising housing costs represent high housing cost areas and areas with slowly rising housing costs represent low housing cost areas, Figure 4-2 supports Camm's assertions that DoD households are not adequately compensated in higher housing cost areas. A further implication of the data in Figure 4-2 is that the current housing allowance rate-setting methodology does not respond well to dynamic housing markets.

#### **Overview of the Current Rate-Setting Method**

There are two principal elements in the military housing allowance rate-setting process. The first is an annual survey of military personnel housing expenditures, and the second is a computer program that uses the reported expenses to compute VHA rates. (Appendix G detailed the rate-setting process.)

Ninety-eight percent of military members residing off-base are located in one of 332 MHAs. In general, MHAs have large enough military populations to provide a statistically significant number of member survey observations; but areas where the off-base military population is small pose a problem for the member survey methodology. DoD has pooled these areas into County Cost Groups<sup>16</sup> so that a sufficient number of observations exist to establish VHA rates.

Estimation of Housing Price. Recall that, due to price effects, the tendency in low-cost areas is to buy more house, and in high cost areas to buy less house, yet spend more in doing so. The member survey data, consisting of reported expenditures, reflect the differences in the quantity of house consumed among areas with varying housing costs. Deriving VHA rates directly from these reported expenditures would overpay members assigned to low-cost areas and underpay those in high-cost areas. Therefore, DoD applies a hedonic index to account for price effects.

The hedonic index uses raw expenditure data to determine an implicit price for a standard bundle of housing. The methodological details may be complex, but the principle is simple. Let's assume that the standard bundle of housing we wish to price is a two-bedroom townhouse. The members' survey will provide rental expenses associated with a variety of

---

<sup>16</sup>County Cost Groups are established using the Department of Housing and Urban Development's (HUD) Fair Market Rents. Counties belonging to the same County Cost Group have FMRs that vary by less than \$15. Because FMR rates are the sole grouping criterion, the counties within a County Cost Group are often from different states and regions of the U.S.

house types and sizes. Many survey responses may represent two-bedroom townhouses; many may not. The hedonic index allows DoD to infer statistically what the price of a two-bedroom townhouse is based not only on two-bedroom townhouse rentals, but on the rental prices of a variety of house types (i.e., three-bedroom apartments, two-bedroom single family homes, etc.). The result are local housing costs for each MHA that are estimates of housing price for a comparable quantity of house.<sup>17</sup>

Advantages of the Current Methodology. Some reasonable arguments can be made for using a members' survey to establish housing allowances. The survey provides housing expenditure data across the spectrum of military housing areas and pay grades for members with and without dependents. The survey also captures members' housing preferences as to residential communities, quantity and type of house, and propensity to buy a house. Camm suggests that, on the whole, the housing demand of DoD and non-DoD households should be similar. However, differences in environment should generally lead DoD households to pay more for rental housing services, switch from renting to owning and occupying later in life, and spend less on their owner-occupied housing assets than comparable non-DoD households.<sup>18</sup> Thus, the members' survey enables DoD to focus on the more relevant housing decisions of DoD households.

Disadvantages of the Current Methodology. While the members' survey seems a natural vehicle for measuring the consumption of housing among DoD households, there are some drawbacks to its use for the purpose of setting housing allowances. Because the rate-setting system is internal, HAs could remain artificially low (or high) in an area because members adjust their housing consumption according to the established HA rate. One senior enlisted service representative expressed this concern by saying that, "VHA is computed from what a service member has to learn to live with, rather than actual cost of living."<sup>19</sup> The extent to which negative feedback from the members' survey affects housing allowances is difficult to quantify. However, the fact that junior enlisted housing allowances are insufficient to procure adequate housing in many areas (see the next section of this chapter) indicates that there is a negative feedback problem.

The circular nature of the current rate-setting methodology hampers its credibility. A 1985 Joint Study suggests that the current housing allowance system creates the perception that,

---

<sup>17</sup>The VHA hedonic index involves forming a 4x4 matrix of housing types. The matrix is formed by cross-tabulating house type with number of bedrooms (the four house types are single family dwelling, townhouse, apartment, and mobile. . . . number of bedrooms are categorized from one to four). For each pay grade and dependency status a national standard house type matrix is developed that reflects, on average, the percentage of members residing in each house type with a given number of bedrooms. This standard house type matrix is then multiplied by the mean expenditure matrix for each MHA. The mean expenditure matrix has the same 4x4 construction as the standard house type matrix.

<sup>18</sup>Frank Camm, *Housing Demand and Department of Defense Policy on Housing Allowances*, vi.

<sup>19</sup>Input to the QRMC from the Navy Senior Enlisted Academy.

"military members can get whatever housing allowance they want by simply filling out a [VHA] survey form."<sup>20</sup>

Additionally, it seems that the members' survey may not be sufficient as the sole data source for determining military housing allowances. The right-hand histogram in Figure 4-3 categorizes MHAs by the size of their respective VHA populations (VHA population refers to members entitled to receive housing allowances). The left histogram shows the corresponding VHA population for each grouping of MHAs as a percentage of the total VHA population. Note from Figure 4-3 that data from less than 2 percent of the total VHA population are used to establish VHA rates in 91 MHAs.

In contrast, the 21 most densely populated MHAs comprise over 46 percent of the total HA population.

For each MHA, 46 separate rates must be computed to cover all 23 pay grades in 2 dependency categories. Thus, at least 230 observations must be collected from an MHA to ensure that a sample size of 5 is used in computing each of the 46 rates.<sup>21</sup> As Figure 4-3 shows, 27 percent of the MHAs have fewer than 230 members residing off-base. In MHAs with small VHA populations, the VHA computer program increases the number of samples by pooling data observations from adjacent MHAs. Even though observations are weighted by relative proximity to duty station, different MHAs produce data from separate populations.<sup>22</sup> The more pooling that occurs, the less likely an MHA's housing allowance rates will accurately reflect any local housing market. The implications of pooling data are

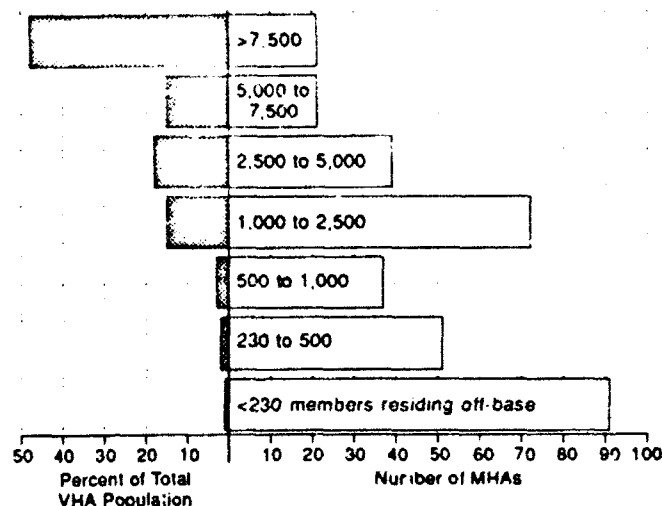


Figure 4-3. VHA Population Distribution among Military Housing Areas

<sup>20</sup>Variable Housing Allowance Program, Should It Be Changed? February 1984, IV-8.

<sup>21</sup>Given the actual distribution of service members across the pay grades and the propensity for marriage among more senior members, it is improbable that 230 observations would provide even 3 observations in each of the 46 categories. Homeownership among about 50 percent of the military members residing off-base further reduces the useful population for sampling.

<sup>22</sup>Booz, Allen, and Hamilton reviewed the VHA rate computation system for the Per Diem, Travel, and Transportation Allowance Committee (PDTATAC) in 1990. This review is maintained by PDTATAC and contains the best documentation of the VHA computational code.

profound for isolated resort areas, which are typically surrounded by rural towns with considerably less expensive housing markets. Thus, the pooling of data from adjacent MHAs or counties tends to depress the housing allowances in these areas. The mission of the Coast Guard complicates the problem when it requires members to reside close to their duty location. The situation has reached the point that the Coast Guard has begun a leased housing program in many resort areas, primarily because the allowance so seriously understates the local housing market costs.

The 1985 DoD survey of enlisted personnel confirmed that housing allowances were relatively lower in MHAs with small VHA populations.<sup>23</sup> First, the survey data showed that over one-third of all enlisted personnel encountered difficulties in obtaining off-base housing. Second, the data revealed a significant negative correlation between the number of members drawing BAQ in an MHA and problems associated with obtaining off-base housing. In general, members in MHAs with small VHA populations frequently encountered problems finding suitable off-base housing. Figure 4-4 shows the higher incidence of complaints from MHAs with smaller VHA populations. (See Appendix H for a complete description of the survey analysis.)

Aside from sampling problems, another potential weakness in the current rate-setting method is its use of member-reported expenditure data. The following subsections address this issue.

#### Housing Price Data and Members' Well-Being

Housing expenditures and the price of housing are distinct concepts. Recall the following identity:

$$\text{Expenditure} = \text{Price} \times \text{Quantity}$$

The implication here is that housing prices are merely housing expenditures for a given quantity of house. *Quantity of house* refers to typical housing characteristics such as dwelling

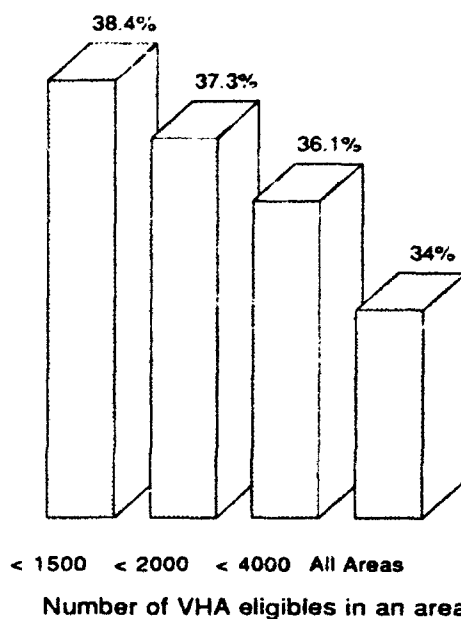


Figure 4-4. Enlisted Members Reporting a Problem Finding Off-Base Housing

<sup>23</sup>The 1985 DoD survey of officers provided too few data points to perform a similar analysis.

type and size. However, other housing benefits that are more difficult to quantify include lot size; construction quality; and location in terms of neighborhood quality, access to public services and schools, shopping opportunities, and commutation.

When a family moves to a higher housing cost area, it experiences an increase in its housing expenditures and a loss in its housing benefits. This loss in benefits results from consuming less house in the higher-cost area—the family will typically choose some combination of a smaller house, a less convenient location, or a less desirable neighborhood. The ideal housing allowance would compensate the family for changes in both housing costs and housing benefits.<sup>24</sup> However, as Camm suggests, the change in a member's well-being as a result of a move is more closely related to changes in the price of housing than to changes in housing expenditures.<sup>25</sup>

Sources of Housing Price Data. Measuring housing prices directly would be the most straightforward approach to building an effective housing allowance. However, because detailed price data are not readily available, and difficult to collect, various methods have been devised to estimate price levels from expenditure data.<sup>26</sup> As discussed previously, the current rate-setting method employs a hedonic index to estimate housing price from reported expenditures. Again, however, evaluating the effectiveness of this estimation procedure requires a comparison with directly measured housing price data.

The QRMC could not locate any source of published housing price data appropriate for large-scale comparisons with military housing allowances.<sup>27</sup> However, several U.S. firms act as cost-of-living consultants, providing regional cost-of-living data to large civilian corporations. The QRMC contracted Runzheimer International, a well-known cost-of-living consultant, to provide housing price data for a representative sample of MHAs. (A fact sheet on Runzheimer is at Appendix I.)

A brief summary of the Runzheimer method for measuring housing price is offered here. The *Runzheimer Administrative Guide*, maintained in the 7<sup>th</sup> QRMC files, contains a more detailed description of this methodology. Runzheimer follows a standards approach in obtaining cost-of-living data. Using a concurrent survey of 160 U.S. cities, Runzheimer determines standard renter and homeowner profiles for a variety of income levels and family

---

<sup>24</sup>The design of such an allowance is addressed later in this chapter.

<sup>25</sup>Camm, *Housing Demand and Department of Defense Policy on Housing Allowances*, 14-18.

<sup>26</sup>Camm describes three ways to estimate price levels from expenditures: price elasticity of demand, chain index, or a hedonic index. The current rate-setting method employs the last.

<sup>27</sup>The American Housing Survey (AHS) was the best published source of price data that we found. The AHS, however, does not sample a sufficient number of households in nonmetropolitan areas. The result is that while AHS may be very complete for Raleigh, NC, there is no guarantee that any observations exist for Jacksonville, NC.

sizes. These profiles consist of total number of rooms, number of bedrooms and bathrooms, and total square footage. Residential communities are selected that support given income levels and housing profiles. Runzheimer then obtains rental costs from local real estate agencies, property management firms, and other companies that manage suitable rentals.

Military HA vs. Price-Based HA. Runzheimer collected rental expense data for 84 randomly selected MHAs for a family size of four with \$30,000 annual household income.<sup>28</sup> The QRMC used these data to compute a set of price-based housing allowances: Let  $P_i$  equal the price of housing in area  $i$ , and let  $P_m$  equal the median price of housing for the 84 areas. Then  $PA_i$ , the price-based housing allowance for area  $i$ , is defined as the local price of housing minus the absorption amount, or:

$$PA_i = P_i - (.192 * P_m).$$

The formula for calculating DoD's total housing allowance (THA) ( $THA = BAQ + VHA$ ) shows the parallel construction of the two allowances:

$$THA_i = LMHC_i - (.192 * NMHC).$$

$LMHC_i$  is the local median housing cost in area  $i$ , and  $NMHC$  represents the national median housing cost. Out-of-pocket absorption for E-6s with dependents in 1991 was 19.2 percent of the  $NMHC$ , or \$132.<sup>29</sup> With the price-based allowance, absorption is 19.2 percent of  $P_m$ , or \$128.

Appendix J lists the Runzheimer-measured rental expenses for the 84 MHAs. Four data items are provided for each location: (1) measured rental expenses, (2) computed price-based allowance, (3) 1991 THA for an E-6 with dependents, and (5) number of E-6s with dependents who are receiving housing allowances.

Figure 4-5 provides a macro view of the current E-6 THA compared with the price allowance determined from the Runzheimer data. (Appendix K provides more detailed graphs that show the MHA names and associated VHA populations.) Figure 4-5 arrays the data left-to-right, from highest to lowest price allowance. Note the tendency for the price-based allowance to be higher in the high housing cost areas, and the E-6 HA to be higher in the low housing cost areas.

<sup>28</sup>Rental expense includes contract rent, utilities, and rental insurance. We chose \$30,000 because the median pay grade in the military is E-6; and an E-6 with 12 years of service earns RMC of \$29,194. Family size of four is the median family size for E-6s with dependents.

<sup>29</sup>The current policy for housing allowances dictates that  $THA_i$  cannot be less than the BAQ amount. Thus, in some MHAs, the difference between  $LMHC$  and  $THA$  is potentially less than the national average of \$132 per month.



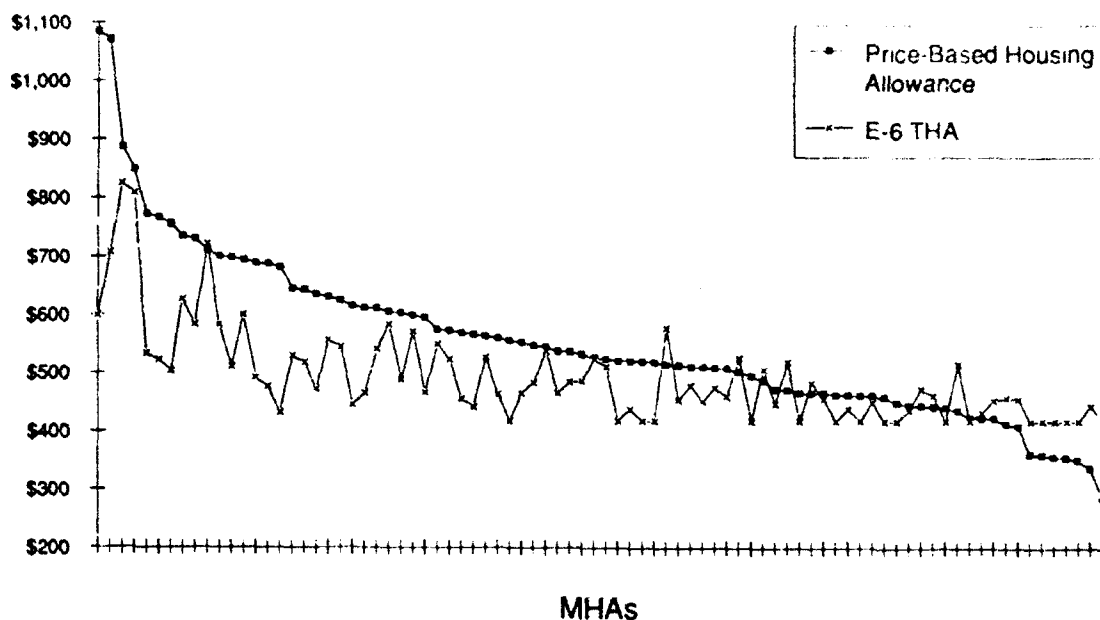


Figure 4-5. E-6 HA vs. Price-Based HA

Figure 4-6 provides a more objective method for comparing the two allowances. In Figure 4-6, a bubble represents each MHA. The size of each MHA bubble is proportional to the number of E-6s with dependents who are receiving cash housing allowances in that MHA. The horizontal axis represents current total housing allowance; and the vertical axis, the price-based allowance. The diagonal reference line shows where the two allowances would be equivalent. Therefore, bubbles that fall above the reference line represent MHAs where the price-based allowance is greater than

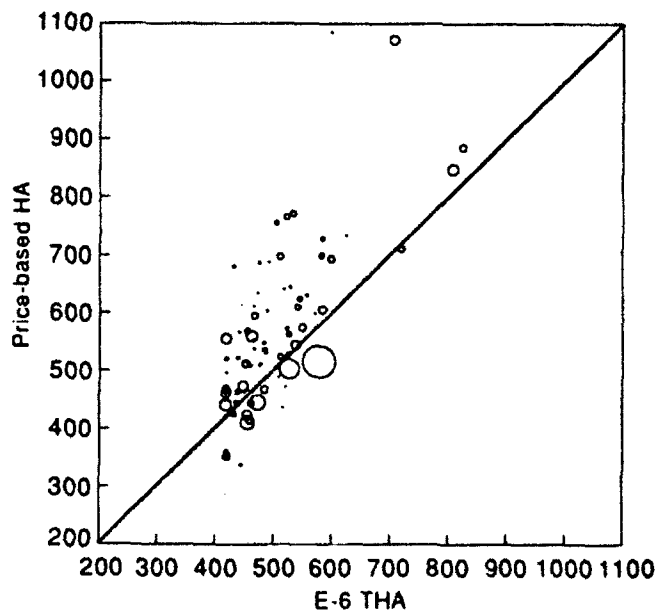


Figure 4-6. Bubble Plot of E-6 HA vs. Price-Based HA

the current total housing allowance. The converse is true for bubbles that fall below the reference line.

Figure 4-6 and statistical analysis confirm the observation made above concerning the relative allowance levels in low- and high-cost housing areas. Note in Figure 4-6 that the prevailing trend is for the higher housing cost areas—those bubbles higher and further to the right in the figure—to lie above the reference line. This indicates that the price-based allowance is higher in these areas. Furthermore, the MHAs with large VHA populations tend to lie near or below the reference line. Thus, in areas with large VHA populations, the E-6 housing allowance tends to be equal to or greater than the price-based allowance. A linear regression of the data in Figure 4-6, reveals that both the amount of the current total housing allowance and the number of VHA eligibles within an MHA are significant predictors of the variation between the two allowances. (See Appendix L for regression results.)

### Summary

Analyses in this report, coupled with recent studies, serve to point out two deficiencies in DoD's housing allowance rate-setting methodology.

The first deficiency stems from the use of member-reported housing expenditures to establish housing allowances. Such a rate-setting system is vulnerable to negative feedback, because housing allowance levels influence housing decisions. It is likely that negative feedback is partly responsible for the erosion of junior enlisted housing allowances to the point that a minimum, or adequacy floor, is needed in many areas (see the next section, Housing Allowance Floor). Also, the current methodology requires DoD to estimate price levels from expenditure data. A comparison of current housing allowances with independently measured housing price data suggests that DoD's method of estimating housing price is not entirely effective. In comparison with price-based allowances, the current housing allowances tend to undercompensate members in high housing cost areas and overcompensate members in low housing cost areas. This result is consistent with Camm's hypotheses concerning the consequences of using expenditure data and lends credence to his statement that, "DoD should give more attention to the price of housing."<sup>30</sup>

The second deficiency with DoD's rate-setting methodology is that the population of DoD members residing off-base does not consistently provide an adequate number of survey observations to establish meaningful housing allowances for all duty locations, pay grades, and dependency statuses. The current rate-setting methodology deals with the small-sample problem by pooling data across MHAs. This method distorts the results upon which housing allowances are calculated by systematically undercompensating members in MHAs with small VHA populations.

---

<sup>30</sup>Frank Camm, *Housing Demand and Department of Defense Policy on Housing Allowances*, 18.

Improving the method for estimating price levels from expenditure data within the current system would make housing allowances more equitable. However, the problems of sample size and negative feedback will remain as long as members' survey data alone are used to establish housing allowance rates.

Instead, DoD should develop a rate-setting methodology that accurately reflects the price of rental housing and overcomes the sample size problems discussed above. An external source of appropriate housing price data should be carefully merged with some form of members' survey to ensure that allowances accurately reflect the housing behavior of DoD households. The members' survey would no longer serve to measure housing costs, but rather to provide information crucial to the design of a meaningful external data collection effort. Conducted on a periodic basis, members' survey data could be used continually to update and refine the new rate-setting methodology.

## HOUSING ALLOWANCE FLOOR

### JSHAS Findings and Recommendation

In November 1991, the JSHAS recommended the establishment of a housing allowance floor to provide DoD with "reasonable assurance that all members are able to afford adequate housing, especially those in the lower pay grades."<sup>31</sup> The JSHAS cited two of its findings to justify the need for a housing allowance floor:

- The members' survey does not address the physical parameters necessary to deduce a quality standard, nor does DoD have a compliance inspection program to assess housing adequacy. Thus, there is no assurance that housing expenses reported by members are sufficient for adequate housing.<sup>32</sup>
- A comparison of E-4 LMHCs and two-bedroom FMRs for all 332 MHAs showed that in 43 percent of the MHAs the FMRs exceeded the LMHCs.<sup>33</sup> As Figure 4-7 illustrates, the difference usually amounted to less than \$50 per month. Even so, the difference in housing expenditures for a significant number of MHAs exceeded \$125 per month.<sup>34</sup>

---

<sup>31</sup>Joint Services Housing Allowance Study, 6-19.

<sup>32</sup>Ibid.

<sup>33</sup>Ibid., 6-11. Appendix M describes the FMR calculation method. The JSHAS cites the FMR as an appropriate basis for comparison because FMRs are computed exclusively from rental units that meet or exceed HUD's quality standards. FMRs are defined as the 45th percentile of standard-quality, recent-mover rents. Thus, units that rent for less than the FMR amount are not necessarily of poor quality.

<sup>34</sup>As pointed out in the JSHAS, many of the MHAs where the FMR exceeds LMHC by a significant amount are high-cost metropolitan areas. This is not surprising, given the findings of the previous section on the rate-setting methodology.

The 7<sup>th</sup> QRMC study confirmed the validity of the first finding, as discussed in the previous section of this chapter. The second finding applies particularly to the junior enlisted member, who typically spends more than 30 percent of total income on rental housing.<sup>35</sup> The young enlisted member with a family, already short on disposable income, could well be forced by low allowances to rent housing that is less than adequate in comparison to the housing of his or her civilian peers. To protect the junior enlisted member, the JSHAS recommended that FMRs or some other measure of rental costs be used to determine floor-level housing allowances. Under the JSHAS recommendation, members would receive the floor amount when it exceeds the current housing allowance entitlement.

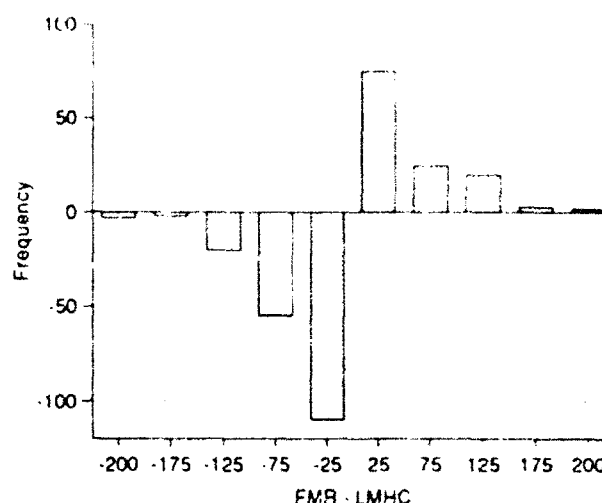


Figure 4-7. Fair Market Rents vs. E-4 Local Median Housing Costs

In the remainder of this section, we address in detail the concept of a floor allowance. Reasonable criteria for a floor are established, and two alternative floor measures are critiqued.

#### Floor Criteria

Any housing allowance floor should meet three criteria:

- Take into account junior enlisted income levels and housing consumption patterns (i.e., provide adequate housing).
- Represent local housing markets facing the junior enlisted members.
- Reflect current rents.

The QRMC used these three criteria to assess, and ultimately decide between, the two floor measures presented below.

<sup>35</sup>Joint Services Housing Allowance Study, 6-9. Also, the American Housing Survey shows that households with between \$10,000 and \$20,000 annual income typically spend between 29 and 35 percent of income on rental housing. (Source: 1989 American Housing Survey, Table 4-20)

## Fair Market Rent

The JSHAS reviewed existing housing data sources,<sup>36</sup> and concluded that, among published housing data, the FMR is the best floor candidate. The JSHAS recommended that, if the FMR is used as a floor, the two-bedroom (2-BR) FMR be used to establish *with-dependent* rates, and the one-bedroom (1-BR) FMR be used to establish *without-dependent* rates.

Representation of Junior Enlisted Income Levels and Housing Consumption. Housing and Urban Development (HUD) publishes FMRs for efficiency, one-, two-, three-, and four-bedroom rental apartments. The data used to compute an area's two-bedroom FMR incorporate all recent-mover two-bedroom units that meet or exceed HUD's quality standard and are not newly constructed. Two-bedroom apartment rentals vary significantly in size, quality, location, and amenities. Moreover, the occupants of 2-BR rentals are likely to be a diverse group in terms of income level, age, and family size. Fortunately, the question of whether a two-bedroom apartment is representative of junior enlisted housing consumption can be answered directly by examining VHA survey responses. VHA survey data for 1991 reveal that 61 percent of E-4s with dependents reside in apartments, of which 62 percent are 2-BR units. Thus, the two-bedroom apartment seems to be a good representation of junior enlisted rental housing.

But is the 2-BR unit represented by the FMR typical of the unit occupied by individuals with incomes comparable to those of junior enlisted personnel? In fact, HUD uses rental data from all income levels to compute FMRs. To address this issue, the 7<sup>th</sup> QRMC asked HUD to compute FMRs *controlling* for income level. The figures under the *Income FMR* column of Table 4-1 represent FMRs that were calculated exclusively from the rents of households earning between \$16,000 and \$20,000 annual income.<sup>37</sup>

Table 4-1. FMRs vs. Income FMRs

Location	FMR	Income FMR	Dollar Difference	Percent Difference
Atlanta	\$495	\$440	\$55	11.1%
Baltimore	445	380	65	14.6
Chicago	489	445	44	9.0
Columbus	382	377	5	1.3
Hartford	584	505	79	13.5
Houston	379	370	9	2.3
Newark	620	540	80	12.9
San Diego	600	566	34	5.7
Seattle	450	445	5	1.1

<sup>36</sup>See Appendix H of *Joint Services Housing Allowance Study*.

<sup>37</sup>In this experiment Income FMRs were calculated using the same computational method described in Appendix M, with the exception that only responses with household income for \$16,000 to \$20,000 were used. This income range is roughly comparable to the RMC of E-1s to E-4s.

In Table 4-1 the mean difference between the actual and the Income FMR is 7.9 percent, or \$39 per month, for the nine selected metropolitan areas. The Income FMRs are consistently lower, and in some areas the magnitude of the difference is significant. It seems reasonable to conclude that, on average, the 2-BR FMR fairly represents the \$20,000 household's living quarters. However, it is also evident that this representation does not apply equally in all areas.

Because \$20,000 is roughly equivalent to the RMC of an E-4 with dependents, it may be viewed as too high for the purposes of a floor. However, as Figure 4-8 shows, most (63 percent) junior enlisted that live off-base are E-4s. Also, a closer look at the typical assignment and promotion patterns of the junior enlisted grades suggests that the E-4 RMC is an ideal benchmark.

The typical enlistee spends the first year of service in recruit and occupational training, and then, as an E-2 or E-3, is assigned to a base, ship, or unit for 2-3 years. Data suggest that promotion to E-4 will occur before the mid-point of this first 2-3 year assignment.<sup>38</sup> It makes sense to provide the appropriate housing allowance at the outset of this first tour, when members shop for rental housing. Providing a lower housing allowance floor (based on E-2 or E-3 income levels) at the outset of the assignment and then increasing it incrementally for each promotion benefits the member little: (1) the increase in the housing allowance from E-2 to E-4 would not typically be large enough to influence members to move, at their own time and expense, into slightly better housing, and (2) because the member does not move, the 50 percent offset provision would likely reduce the amount of the allowance increase. Thus, moving up or remaining in less satisfactory housing would both carry costs for most E-4s.

Representation of Local Housing Markets. HUD defines FMRs for metropolitan areas and nonmetropolitan counties. For metropolitan FMRs, HUD uses the Office of Management and Budget's definitions of Metropolitan Statistical Areas (MSAs) and Primary Metropolitan Statistical Areas (PMSAs). In many instances, the resulting FMR areas are quite large. In fact, the General Accounting Office (GAO) is currently reviewing HUD's method to determine

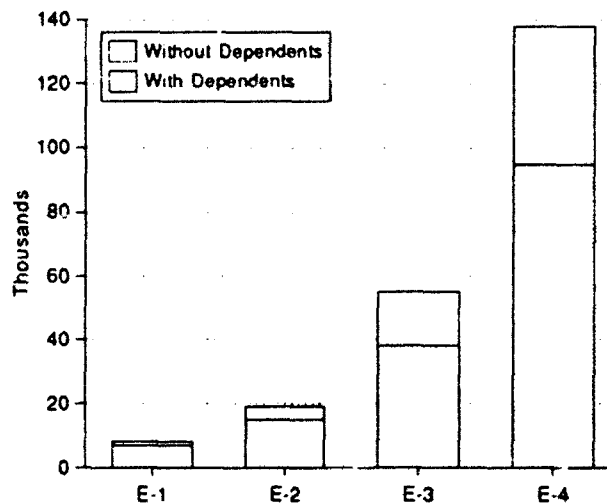


Figure 4-8. Junior Enlisted VHA Population

<sup>38</sup>The DoD average promotion time to E-4 is 2 years and 3 months. Service averages are: Army and Navy, 2.0 years; USMC, 3.0 years; and USAF, 2.8 years (based on 1990 data).

whether FMR areas are appropriate. This raised our concern as to whether FMR areas fairly represent the local housing markets adjacent to military installations.

As an example, the Washington, DC, FMR area extends 40 miles to the south and 30 miles to the west of the city. Because rents vary significantly according to location (i.e., proximity to metropolitan centers), it seems doubtful that any one number meaningfully portrays a *typical* rent for the entire Washington area. Thus, we would expect the Washington FMR to represent a weighted average of rental units in the Washington MSA. Figure 4-9 demonstrates that this is the case. Rental expense data for comparable two-bedroom apartments in Quantico and Arlington, VA, and the District of Columbia are plotted against the Washington two-bedroom FMR amount.<sup>39</sup> As expected, the FMR overstates the price of rentals in areas such as Quantico, on the periphery of the Washington MSA, and understates the price of rentals at the center of the MSA—the District of Columbia.

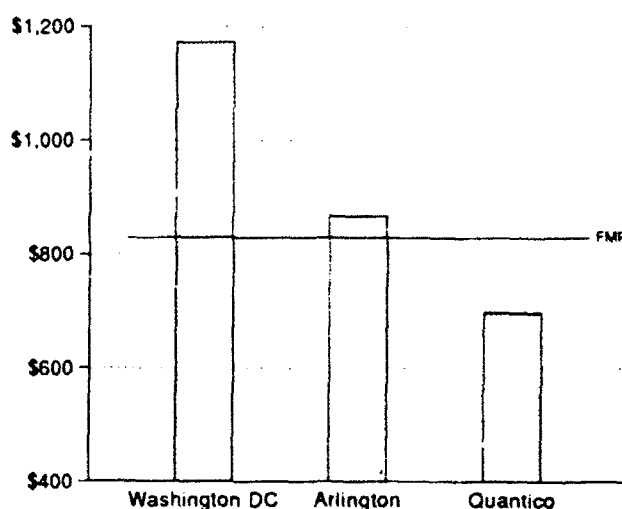


Figure 4-9. Washington, DC, FMR vs. Local Rental Costs

Similar problems occur in nonmetropolitan areas, where HUD frequently groups data from several counties to ensure sufficient observations. As a result, one FMR is intended to represent all the counties in a particular grouping. HUD typically uses this county grouping technique to compute FMRs in isolated resort areas. Because resort areas normally command higher rents than the surrounding areas, FMRs do not accurately portray the resort area housing market.

The case of Hatteras, NC, located in Dare County, is shown in Figure 4-10 as an example. To achieve sufficient observations to calculate FMRs, HUD groups Dare County with the eight other shaded counties in Figure 4-10. As a result of this grouping, the FMR for Hatteras is \$378, whereas Runzheimer data suggest that actual rental expenses near Hatteras are considerably higher—about \$606 per month. It is apparent that HUD's grouping methodology has significant implications for resort areas such as Hatteras. However, the problem extends beyond resort areas. To the extent that HUD groups counties to compute FMRs, the resultant FMR becomes more of an aggregate regional measure than a true

<sup>39</sup>Rental expense data were collected by Runzheimer International and reflect the sum of contract rent, utilities, and insurance costs.

indicator of rental expenses within any specific within any specific local housing market.

HUD uses major regional (Northeast, Midwest, South, and West) CPIs for shelter and utilities to update FMRs in non-metropolitan areas. This updating method may further divorce FMRs from specific housing markets. For instance, the oil belt falls within the South region of the CPI. However, it seems doubtful

that CPI data for the entire South reflect the dynamic housing market of oil-belt communities.

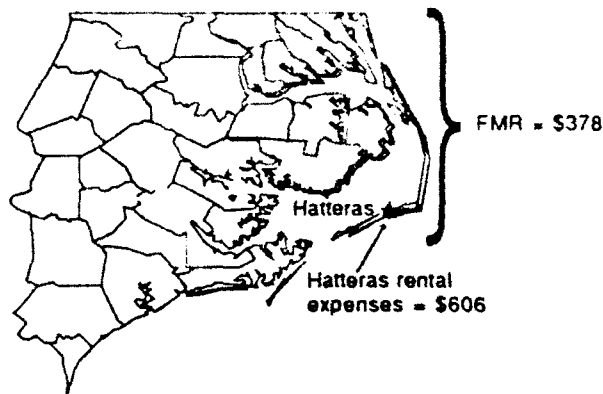


Figure 4-10. Hatteras FMR vs. Local Rental Costs

Representation of Current Rents. HUD bases FMRs on data collected every ten years for the U.S. Census. In the intervening years, FMRs are updated using American Housing Survey (AHS) data and the CPIs for shelter and utilities.

HUD relies on public feedback and, recently, random-digit dialing (RDD) telephone surveys to verify its FMRs. Public feedback is quite effective for identifying FMRs that are too low. However, as might be expected, HUD receives few complaints when FMRs are too high in an area. Telephone surveys have aided HUD in pinpointing FMR problem areas. However the cost of conducting RDD surveys is approximately \$15-\$20,000 per area, which virtually guarantees that HUD will continue to use such surveys on a limited basis.

Another weakness of the FMR updating method is the time lag between when the data are collected and when they are actually applied to the FMR. The 1992 FMRs are based on 1980 Census data that have been updated annually by the housing and utilities components of the CPI.<sup>40</sup> Because it typically takes about three to four years to process the Census data, HUD will not re-base FMRs to the 1990 Census until 1993 or 1994. The data used in establishing the CPI also suffer from a time lag. As an example, 1991 FMRs were updated for 1992 using CPI data collected at the end of 1990.

Again, the Washington, DC, FMR provides a useful example of the time-lag problem. The Washington, DC, two-bedroom FMR for 1992 is 13 percent higher than the 1991 figure. This result does not mirror a sharp increase in Washington area rental prices during 1991. In fact, two independent sources of housing cost data estimate that Washington area rentals

<sup>40</sup>The update method is different for metropolitan and nonmetropolitan FMRs. The 44 metropolitan areas listed in Appendix M are covered on a four-year cycle (11 per year) by the metropolitan sample of the AHS. In non-AHS years metropolitan CPIs for shelter and utilities are used to update. Nonmetropolitan FMRs are updated annually using regional (Northeast, Midwest, South, and West) shelter and utilities CPIs.



increased by only 3-5 percent during 1991.<sup>41</sup> Instead, the 13 percent jump in the FMR is the result of incorporating the results of the 1989 AHS.<sup>42</sup>

**Summary.** The FMR has some drawbacks as a candidate for setting housing allowance floors. While it fairly represents the rental behavior at junior enlisted income levels, FMR areas are often too large to provide a meaningful measure of rental costs encountered by military members. Thus, the FMR is an imprecise measure at best, and in some cases fails to capture the cost of adequate housing within reasonable proximity to duty location.

The Hatteras, NC, example of Figure 4-10 illustrates how HUD's method of grouping nonmetropolitan counties can give rise to FMR rates that are much lower than the cost of adequate housing in Hatteras. Unfortunately, HUD must group counties to ensure sufficient observations are collected, as neither the Census nor AHS currently provide an adequate number of usable data points to set FMR rates for more specific locales. This fact is important, as it *precludes the possibility of DoD using raw Census and AHS data to establish locality floors.*<sup>43</sup>

A further weakness of the FMR is that the rates are based on housing data that are frequently several years old and have been updated annually using indexes that represent broad areas and themselves contain an inherent time lag. As a result, annual updates to FMRs reflect changes to aggregate rental markets that occurred one or more years earlier.

FMRs may be ideal for HUD's purposes of paying housing subsidies. The example in Figure 4-10, from HUD's perspective, presents no worrisome problem because the agency has no policy interest in paying housing subsidies to poor families living in resort areas. DoD, however, needs a measure of rental costs that is capable of targeting specific housing markets, even in resort areas. It seems, therefore, that the FMR is too broad a measure to function effectively as a housing allowance floor.

#### **Runzheimer Rental Expense Data**

As previously mentioned, DoD should strive for a floor measure that accurately reflects the current housing markets near military installations and supports a housing standard appropriate for junior enlisted personnel. Moreover, this housing standard should be consistently represented among areas. Considering these requirements, it seems that the floor measure must be specifically tailored to serve DoD's needs adequately. As the JSHAS discovered, no measure currently exists that meets all desired criteria. The FMR comes the

---

<sup>41</sup>Runzheimer International and Alexandria Department of Housing.

<sup>42</sup>The then-proposed 1992 Washington, DC, FMRs caused somewhat of a public controversy. See Kirstin Downey, "HUD Report Renews Debate on Rent Rates," *Washington Post*, June 1, 1991.

<sup>43</sup>In most nonmetropolitan areas, there are simply insufficient observations. The metropolitan samples are probably sufficiently large to establish locality floors, but the issue of recency make these data less than ideal.

closest but, as pointed out in the previous section, has some serious deficiencies as a floor measure. The most promising alternative is to design a new survey that captures the needed information.

Representation of Junior Enlisted Income Levels and Housing Consumption. An E-4 with dependents earns RMC of about \$20,000. As previously discussed, this seems a reasonable income level to survey in order to establish a housing allowance floor. A *with-dependents floor* can be determined using Runzheimer's standard rental profile for a family of 2-3 with \$20,000 annual income.<sup>44</sup> This profile is a 900-square-foot apartment with 4 rooms, 2 bedrooms, and 1 bathroom.

Figure 4-11 shows the current housing allowances for an E-4 with dependents plotted against housing allowances determined for each MHA from the Runzheimer rental expenses for a \$20,000 household (\$20k HA).<sup>45</sup> Each data point in Figure 4-11 represents an MHA. The vertical axis indicates the current E-4 housing allowance, and the horizontal axis shows the corresponding \$20k HA. The diagonal reference line indicates where the two allowances are equal.

Figure 4-11 demonstrates that the THA of an E-4 with dependents is fairly comparable with the \$20k (2-BR) HA. In fact, of the 332 MHAs represented in Figure 4-11, 122 (37 percent) lie above the reference line, indicating that the E-4 THA is higher than the \$20k housing allowance for that area. It appears that the \$20k housing profile of 2 bedrooms and 900 square feet accurately characterizes the current housing situation of E-4s with dependents.

The appropriate rental profile for an E-4 without dependents is not as clear. Members' survey data show that 50 percent of them live in apartments with one or zero (efficiency) bedrooms. Runzheimer's standard rental profile for \$20,000 income, family size 1, is a 700-square-foot apartment, with 3 rooms, 1 bedroom, and 1 bathroom.

Figure 4-12 shows the current housing allowance for an E-4 without dependents plotted against housing allowances determined from the \$20k data for each MHA.<sup>46</sup> Figure 4-12 reveals that in most cases, the \$20k (1-BR) housing allowance is higher than the E-4 without-dependents housing allowance, so the \$20k housing profile for a family size of 1 does not

---

<sup>44</sup>Runzheimer's standard rental profile represents typical rental housing for a given household income and family size. The profile is determined from a concurrent survey of 160 U.S. cities. The mean family size for E-1s to E-9s with dependents is about 2.5; the median family size, 3.

<sup>45</sup>To compute housing allowances from the \$20k data, out-of-pocket absorption is calculated in the same manner as the current housing allowance system. Using the \$20k data, an absorption factor of 20 percent, or \$117, is assumed. Under the current system, E-4s with dependents absorb \$124 per month.

<sup>46</sup>As before, out-of-pocket absorption is calculated in the same manner as the current housing allowance system. For an E-4 without dependents, the 20 percent absorption factor using the \$20k data amounts to \$103 per month. Under the current system, E-4s without dependents absorb \$91 per month.

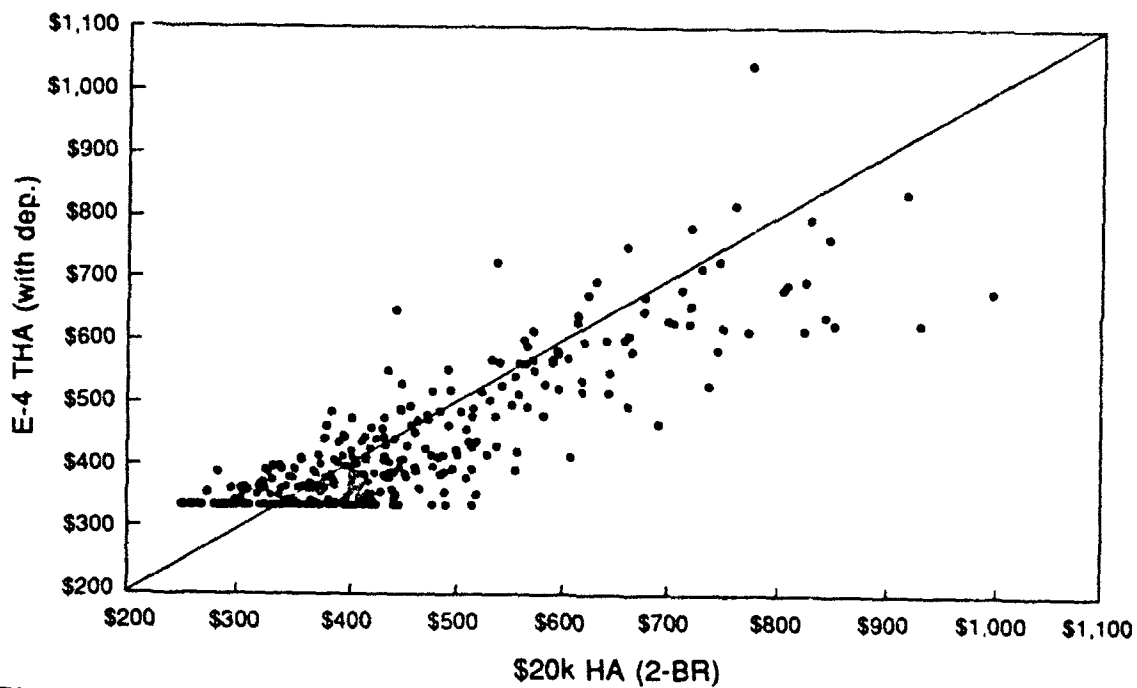


Figure 4-11. E-4 (with) HA vs. \$20k (2-BR) HA

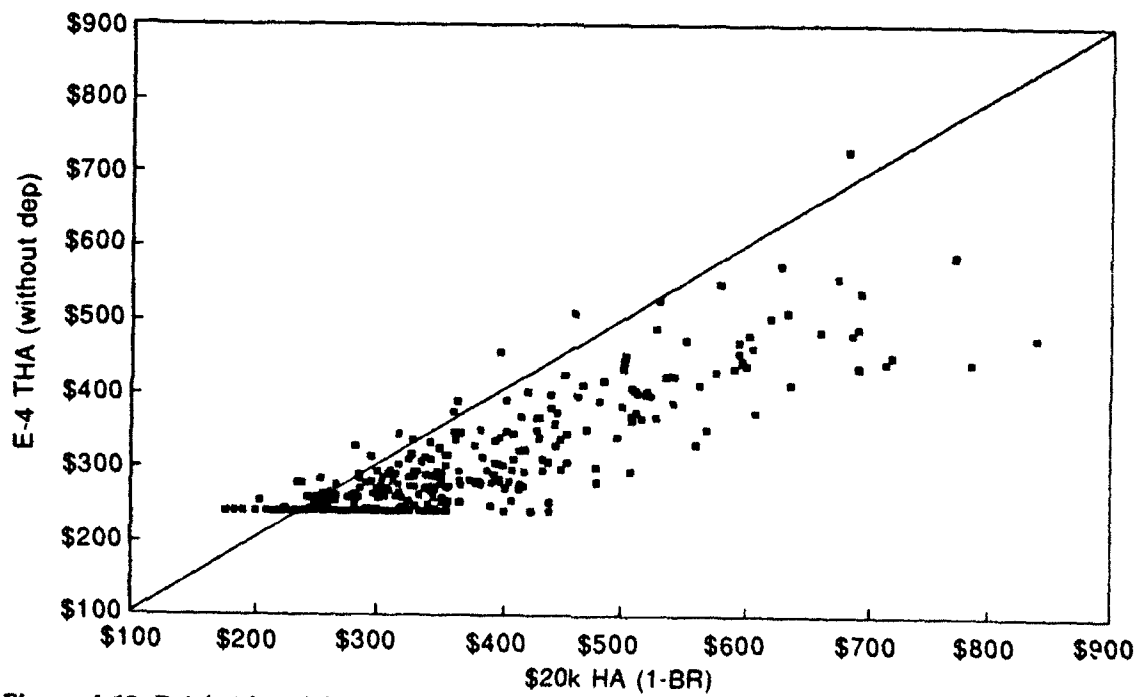


Figure 4-12. E-4 (without) HA vs. \$20k (1-BR) HA

represent what E-4s without dependents currently spend on housing. The 307 (92 percent) data points in Figure 4-12 that lie below the reference line indicate MHAs where the \$20k HA is greater than the E-4 without-dependents HA.

Figure 4-13 shows the current housing allowances for an E-4 without dependents plotted against housing allowances determined from the \$20k data representing efficiency rentals (1 room, 1 bath, 600 sq ft). Note that the efficiency unit seems to be more representative of what E-4s without dependents currently spend on housing than the one-bedroom apartment. (See also the 7<sup>th</sup> QRMC Staff Analyses, MTS 1—*Compensation Structure*, devoted to compensation policies, which addresses the question of what sort of housing allowance junior enlisted members without dependents *should* receive.)

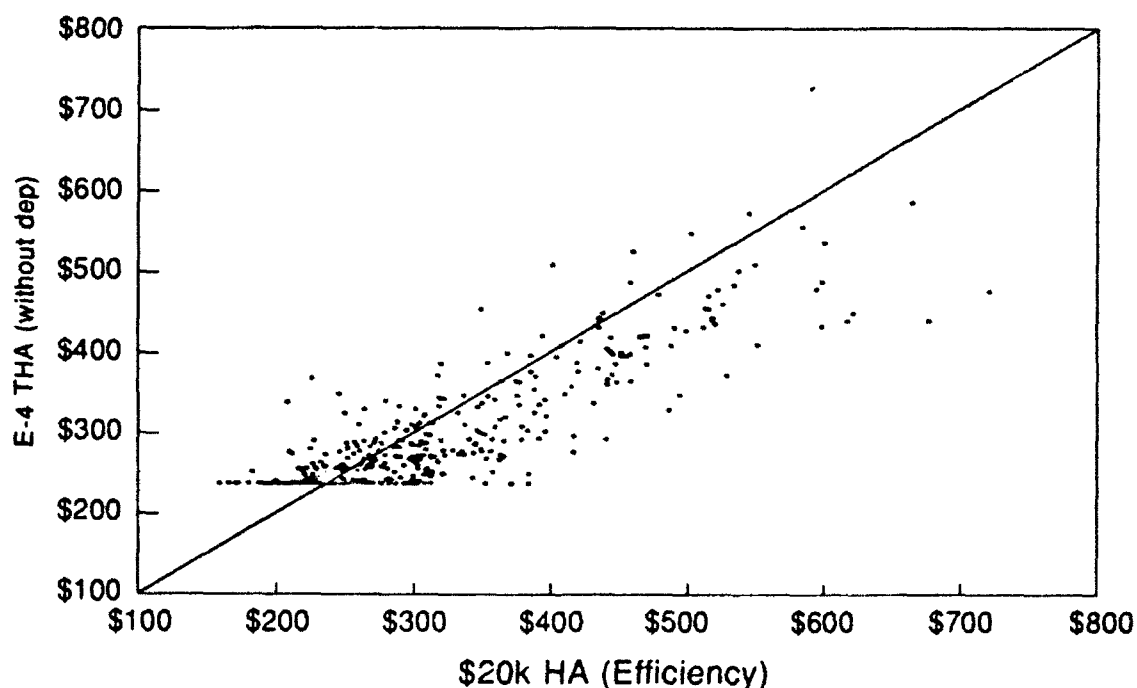


Figure 4-13. E-4 (without) vs. \$20k (Efficiency) HA

The horizontal clustering of HA rates in Figures 4-11 through 4-13 shows a notable feature of the current housing allowance system. In Figure 4-11, this clustering occurs at \$341, which is the monthly BAQ amount for E-4s with dependents. In many areas, the BAQ is higher than the \$20k housing allowance. Clearly, the BAQ minimum creates inequities in the sense that members in the lowest housing cost areas are, on average, absorbing somewhat less than 20 percent of their housing costs.

Representation of Local Housing Markets. The Runzheimer data are very specific, focusing on residential communities that are socioeconomically consistent with the \$20k

income level and reasonably close to military installations.<sup>47</sup> Conversely, the HA rates reflect a broader spectrum of communities and rental housing.

In Figure 4-14, the Auburn, AL, MHA is offered as an example. The Auburn MHA is composed of the three counties shown. This means that the VHA survey data of every military member residing within these three counties is used in calculating the Auburn VHA. The \$20k data focuses on residential communities that are close to major installations. In the Auburn MHA, most military personnel are assigned to ROTC units at Auburn University.

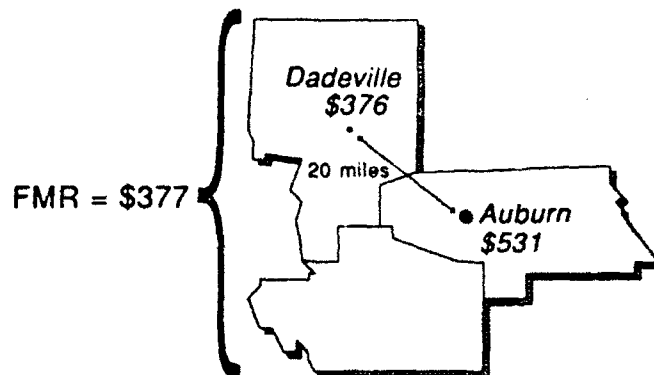


Figure 4-14. Auburn Military Housing Area

Therefore, Runzheimer collects \$20k data in communities located in Auburn. These data indicate that a 2-BR apartment costs \$531 per month in Auburn, whereas the LMHC for an E-4 with dependents residing in the Auburn MHA is only \$461, about 13 percent less than what is required. The probable cause of the variation is the fact that all E-4s with dependents do not choose to reside within the town of Auburn. An E-4 who chooses to commute 20 miles by living in Dadeville enjoys a significantly less expensive rental market. In Dadeville, a 2-BR apartment rents for \$376 a month, 29 percent less than the Auburn 2-BR apartment. In an expenditure-based system, such personal housing choices affect housing allowance rates. In this case, the effect is to lower the Auburn E-4 LMHC by around 13 percent. Two results emerge: (1) members who choose to reside close to their duty station must pay an out-of-pocket premium to offset actual Auburn rents, and (2) members who freely choose to reduce rental costs by commuting from some distance experience a decline in the monetary benefit associated with this sacrifice.

Thus, the Runzheimer data may represent a subset of the housing market reflected by the current housing allowances. In metropolitan areas, rents often differ dramatically between residential communities with similar demographic makeups that are less than 20 miles apart. Thus, in instances where military installations are located well within metropolitan areas, there is potential for large variations between LMHC and Runzheimer expenses. Because Runzheimer surveyed desirable living communities within reasonable proximity to duty location, it is reasonable to expect that the Runzheimer-measured rents in these areas, as in Auburn, will be higher than LMHC. To the extent that low housing allowances force an

<sup>47</sup>Generally, these communities are within 10-15 miles of military installations. This distance increases in areas where it is difficult to find residential communities supportive of the \$20,000 income level. (Runzheimer focuses on residential communities that support the lifestyle of its *standard city* \$20,000 household—thereby accounting for regional wage variations.) In no cases are the survey communities more than 35 miles from duty location.

MHA's members to reside a substantial distance from military installations, the specific focus of the Runzheimer data is desirable.

The Auburn example illustrates the potential inconsistencies between externally measured rents and current housing allowances. In terms of a floor, these inconsistencies should not concern DoD: the Runzheimer data provide for adequate housing in all areas. However, careful consideration must be given to these inconsistencies should DoD decide to adopt an external housing survey for the purposes of setting all housing allowances.

Representation of Current Rents. Because Runzheimer performs a new survey in response to each data request, the data collection process takes from two to four weeks, the rental expense data are current.<sup>46</sup> Furthermore, Runzheimer prices only vacant rentals. This is important, as vacancy rents tend to rise and fall more rapidly than the rents of occupied units and are therefore more representative of the housing market a member encounters upon arrival at a new duty station.

Summary. Runzheimer's methodology for collecting housing price data appears to fulfill our criteria for a floor. The Runzheimer data report up-to-date vacancy rents that fit the housing consumption pattern and community selection of junior enlisted income levels. The Runzheimer data, because of their precise focus on specific residential communities, often constitute a subset of an MHA's housing market. However, that subset is composed of adequate rental units in desirable communities located close to military installations. Thus, the Runzheimer data are ideal for ensuring that only adequate and appropriate housing is incorporated in DoD's rate-setting calculation.

DoD may be able to reduce the cost of a floor by having Runzheimer price a broader range of residential communities around a given military installation. The members' survey seems well-suited for identifying additional target communities. However, this expansion should be done with discretion, as many of the housing decisions reflected in the member survey are likely influenced more by current housing allowance rates than by members' preferences.

#### **Comparison of the FMR and \$20K Floors**

The JSHAS proposed that the FMR, or another appropriate measure, be used as a housing allowance floor to ensure that junior enlisted personnel obtain adequate housing regardless of their location. Under the JSHAS proposal, the floor would act as a safety net. That is, a member would receive the floor amount only in those cases where the floor exceeds the THA. DoD could apply either the \$20k data or FMRs to act as a housing allowance floor in

---

<sup>46</sup>Recall that the THA is based on reported rents of occupied units. In addition, there is a 7-8 month lag between the member survey and published THA rates. In this case, the member survey data are from April 1991; the \$20k data, from November 1991.

areas where current housing allowances fall below local market rents. (See Appendix N for 1992 DoD HA rates.)

The remainder of this section compares the FMR and the \$20k data as floor measures, computed for members with and without dependents.<sup>49</sup> Summary statistics for all floor alternatives are presented. This is followed by a discussion of the differences between the floor measures, including their cost.

With-Dependents Floor. Figure 4-15 shows the \$20k (2-BR) data plotted against 2-BR FMRs. Note that most data points (MHAs) lie below the reference line, indicating that the \$20k data typically report higher rents than the FMRs.

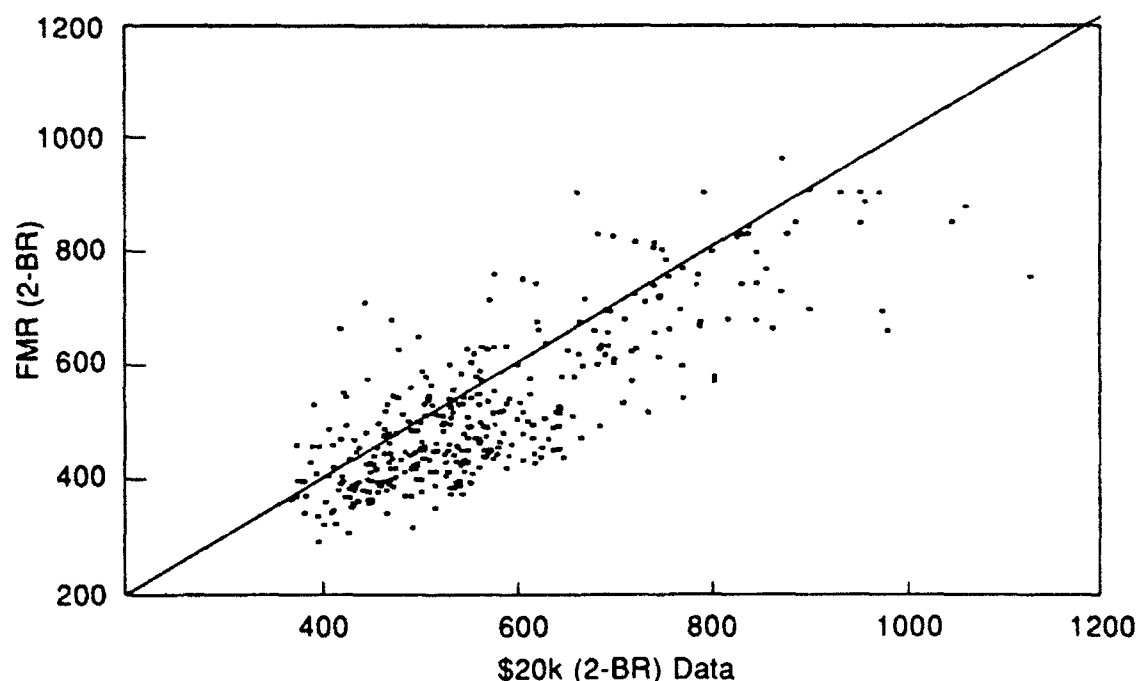


Figure 4-15. \$20k (2-BR) vs. FMR (2-BR)

Housing allowance floors can be calculated directly from both the FMRs and \$20k data.<sup>50</sup> Figure 4-16 shows the impact of the FMR and \$20k floors on members with dependents. The

<sup>49</sup>Appendix O lists the FMRs and \$20k rental expense data for each MHA. The mapping of Runzheimer survey areas into MHAs is also provided. 1992 FMRs are used. Since FMRs are published by county, in many cases a single MHA contains several FMR rates. In these cases an average FMR was calculated by weighing each county's FMR according to its military population.

<sup>50</sup>The floors for this study were calculated in the same manner as the \$20k HA in the previous section, assuming 20 percent absorption. The FMR NMHC is \$542 per month and the \$20k (2-BR) NMHC is \$585. Therefore, the monthly absorption amounts for the FMR and \$20k floor are \$117 and \$108, respectively.

top chart shows the percentage of VHA-eligible members with dependents who would be affected by the FMR and \$20k floors. The lower chart shows the average amount the housing allowance would increase, by grade, as a result of the two floor measures. (Appendix P lists the new HA for members with dependents under both the FMR and \$20k floors.)

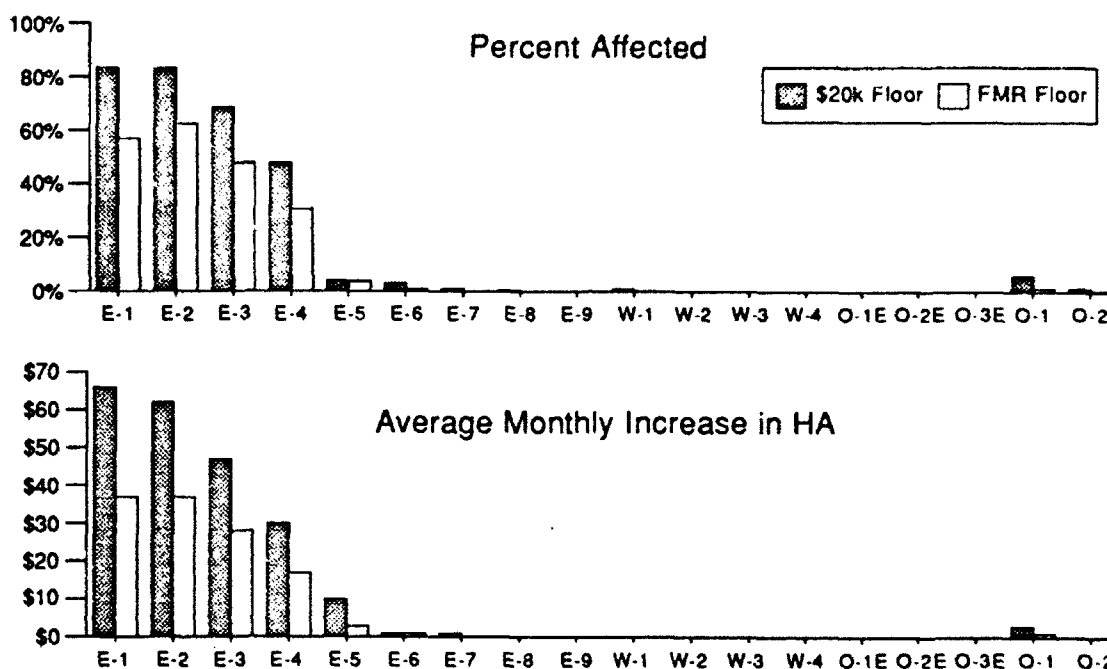


Figure 4-16. Floor Impact: Members with Dependents

Without-Dependents Floor. Figure 4-17 shows the \$20k (1-BR) data plotted against 1-BR FMRs.<sup>51</sup> Again the \$20k data generally report higher rents than the FMRs, as most of the MHAs lie below the reference line.

Figure 4-18 shows the impact of the FMR (1-BR) and \$20k (1-BR) floors on members without dependents.

Efficiency Floor (E-1s to E-4s). Because the current without-dependents rates for E-1 to E-4 tend to align most closely with efficiency rentals, housing allowance floors were also calculated using the efficiency apartment as the housing standard for these grades. (The housing standard for E-5s and above remains the one-bedroom apartment.) The impact of the efficiency floor on members without dependents is shown in Figure 4-19. (Appendix Q lists the new HA for members without dependents under both FMR and \$20k efficiency floors.)

<sup>51</sup>Again, 20 percent absorption is assumed. The 1-BR FMR NMHC is \$473 per month and the \$20k (1-BR) NMHC is \$514. Therefore, the monthly absorption amounts for the FMR and \$20k floor are \$95 and \$103, respectively.



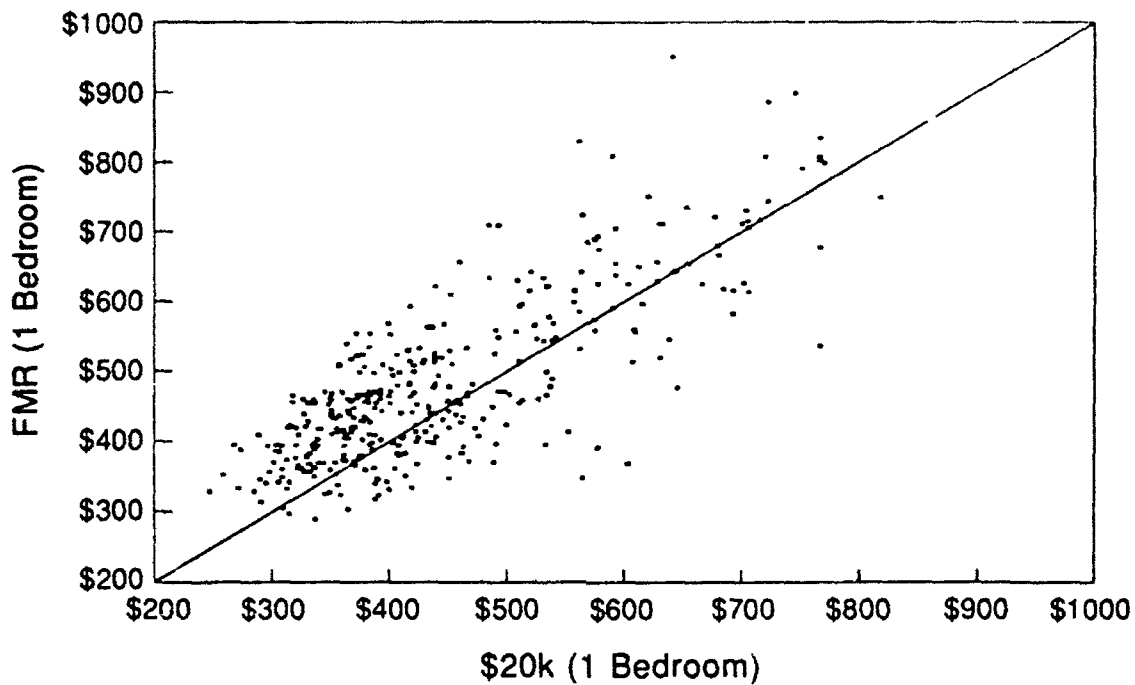


Figure 4-17. \$20k vs. FMR for 1-BR Units

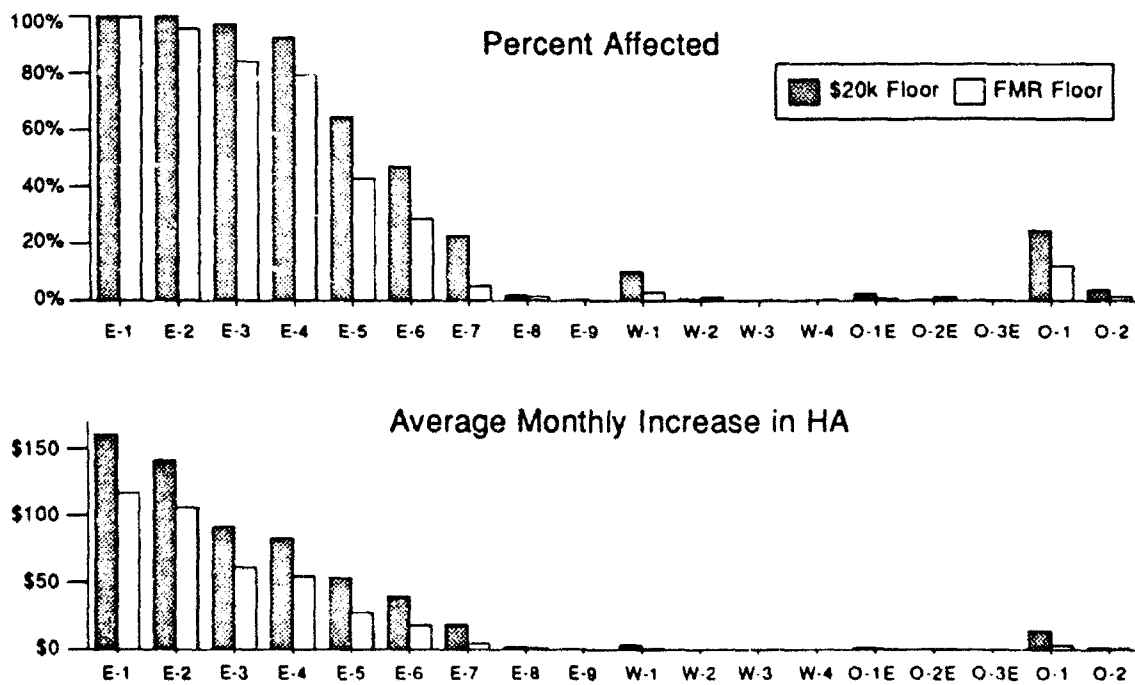


Figure 4-18. One-Bedroom Floor Impact: Members without Dependents

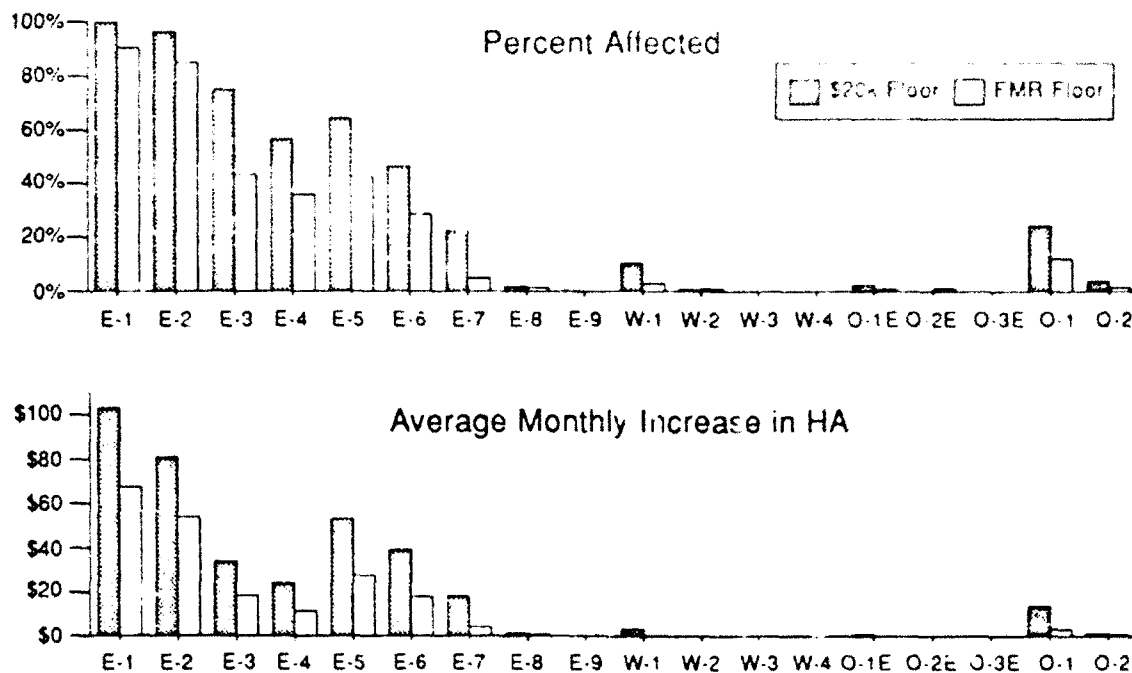


Figure 4-19. Floor (Efficiency) Impact: Members without Dependents

A closer look at the without-dependents rates for junior enlisted reveals an interesting result. The left graph in Figure 4-20 shows the without-dependents rates expressed as a percentage of the with-dependents rates for E-1 to E-4. The right graph in Figure 4-20 shows the rental costs of one-bedroom and efficiency apartments as a percentage of two-bedroom apartment rents.<sup>52</sup>

Recall that the data in Figure 4-11 established that the with-dependents allowances are representative of a two-bedroom apartment. This makes a direct comparison of the two plots in Figure 4-19 meaningful. Note that the without-dependents allowances do not approach the

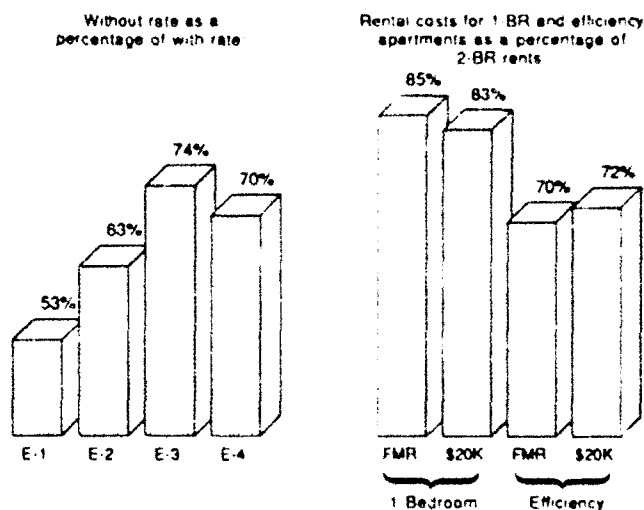


Figure 4-20. Without Rates vs. 1-BR and Efficiency Rentals

<sup>52</sup>Percentages were determined from HUD's FMR rates and from Runzheimer International's rental expenses for Standard City.

one-bedroom rental expenses, whereas the without-dependents rates for E-3s and E-4s are fairly comparable to efficiency apartment rents. However, the without-dependents rates for E-1s and E-2s seem to represent a sharer's portion of the rental expenses associated with co-occupying a unit.<sup>53</sup>

### Differential Impact of Floor Measures

Note that, in all cases (Figures 4-17 through 4-19), the floor calculated from the \$20k data would make a larger impact on housing allowances than the corresponding FMR floor. These figures do not tell us, however, how much the two floor measures would vary within a given MHA. Figure 4-21 directly compares, by MHA, the \$20k (2-BR) floor and the FMR (2-BR) floor.

Note from Figure 4-21 that an E-4 with dependents would not be affected by either floor in 97 (29 percent) of the MHAs. In 175 (53 percent) of the MHAs, the \$20k floor would give the E-4 a higher housing allowance, and in 60 (18 percent) of the MHAs the FMR floor would produce a higher allowance. The amount provided by the two floors differs by less than \$50 in 61 percent of the MHAs. The remaining 39 percent of the MHAs would yield larger differences, some quite substantial. This subsection addresses the reasons for these differences.

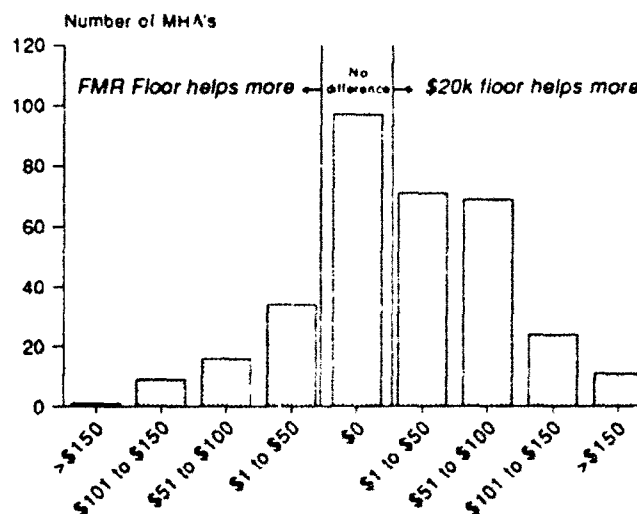


Figure 4-21. Differences in (2-BR) Floor Impact

First, there is the question of type of rental unit surveyed. Runzheimer focuses on a particular housing type in terms of numbers of bedrooms, total rooms, bathrooms, and total square footage. The \$20k data were collected exclusively for vacant rentals in selected communities where households with \$20k incomes commonly reside. Runzheimer selected these living communities based on general desirability and volume of relocation activity. Conversely, FMRs are based on the universe of *adequate* apartments with a given number of bedrooms that have been occupied by new tenants within the past two years. As previously discussed, vacancy rents are more responsive than occupancy rents to fluctuations in the housing market. Data recency is also an issue. The \$20k data are practically real-time,

<sup>53</sup>In fact, discussion with PDTATAC confirmed that E-1 to E-3 without-dependent housing allowances were not based on VHA survey data, but rather on preserving the ratio between without and with rates established by the BAQ rates in 1971.

whereas FMRs are computed on a periodic basis and updated in intervening years using the housing and utilities components of the CPI.

While the above factors certainly contribute to some of the substantial differences between the \$20k data and FMRs, the fact that the two sources typically represent different geographic areas seems to be the largest source of variability. *Although separate FMRs are published for each county in the U.S., counties are frequently grouped together to form metropolitan areas or, in less densely populated areas, to ensure sufficient data points are available. As a result, FMR market areas are typically quite large.*

For example, Figure 4-22 shows an FMR market area in southern California that covers San Bernardino and Riverside Counties. Two MHAs lie within this market area: the city of San Bernardino and the desert community of Twentynine Palms. Note that the \$20k data for the city of San Bernardino reflect higher rents than the FMR. Conversely, the \$20k data for Twentynine Palms are considerably lower than the FMR.

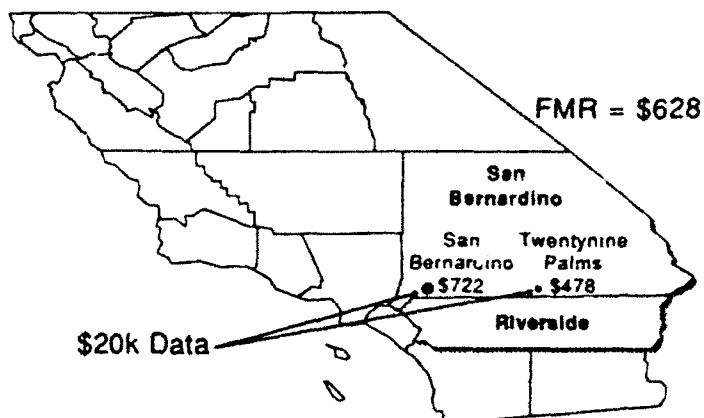


Figure 4-22. San Bernardino FMR Market Area

Here, the \$20k data represent the housing markets that are unique to Twentynine Palms and San Bernardino. The FMR represents a gross rental average that encompasses both markets, but doesn't apply specifically to either.

#### Floor Costing

**\$20k Floor vs. FMR Floor.** Figure 4-23 shows the cost (in 1992) of four alternative floor proposals, assuming that members must absorb 20 percent of their housing costs.<sup>54</sup> The most costly is the \$20k floor using the 1-BR unit for the without-dependents rate, and the least costly is the FMR floor using the efficiency unit as the standard for E-1s to E-4s without dependents, and the 1-BR for E-5s and above without dependents. (All proposals use the 2-BR rental as the standard for members with dependents.)

Figure 4-23 also shows the cost of each floor proposal for members with and without dependents. Note that when the 1-BR rental is used as the standard for members without dependents, over half the total cost is attributable to members without dependents. This is a revealing statistic, given that there are about three members with dependents for every one

<sup>54</sup>Costing was performed using 1992 HAs and VHA populations. See Appendix N

member without dependents receiving housing allowances.

**BAQ as a Minimum Housing Allowance.** The notion of a housing allowance floor is by no means alien to the military's housing program. Under the current housing allowance system, a member receives at least the BAQ amount (60 percent of national median housing cost), regardless of local housing costs. External housing price data suggests that, in some areas, typical rental expenses for E-1s to E-4s exceed BAQ amounts by less

than current absorption levels (the horizontal clustering in Figures 4-11 through 4-13 illustrate this point). This implies that members in these areas are typically paying less from their own pockets for housing than the DoD average.

This finding is supported by the fact that 8.9 percent of members entitled to housing allowances have VHA rates equal to zero. In these MHAs, housing allowances have become somewhat divorced from local housing costs. Because BAQ represents a minimum housing allowance, the disassociation results in overpayments. This creates an inequity within the housing allowance system, as the value of the housing allowance varies among areas. Furthermore, this is not a cost-effective means for DoD to disburse housing allowance dollars. The 7<sup>th</sup> QRMCM estimates that DoD would save about \$33 million during 1992 by calculating housing allowances exclusively from housing costs.<sup>55</sup> Elimination of the BAQ minimum would serve to offset a significant portion of the cost to implement a housing allowance floor.

#### Summary and Recommendation

All the floor measures depicted in Figure 4-23 would serve to improve the junior enlisted member's ability to procure adequate rental housing. However, the large size of FMR market areas fails to ensure that members will be able to find adequate housing near a duty location for the FMR amount. As the example in Figure 4-21 illustrates, the member assigned within

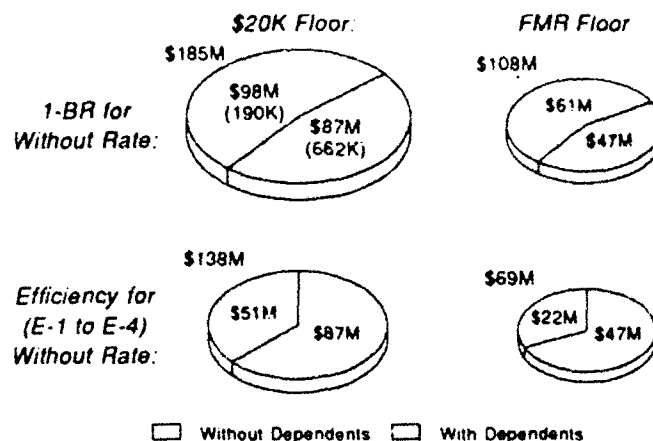


Figure 4-23. Cost of Alternative Floors

<sup>55</sup>This cost estimate was done using FY 1992 local median housing costs (LMHC), absorption amounts, and populations (all pay grades). The total of \$33 million represents the difference between the program cost using current housing allowances (where some members absorb less than the national average due to the BAQ minimum), and program costs using housing allowances determined strictly as LMHC minus the absorption amount.

the city of San Bernardino would not be well-served by the FMR-based floor allowance, while his counterpart in Twentynine Palms would enjoy a windfall. In addition, the FMR completely fails to address the housing problems encountered by junior enlisted personnel in isolated resort areas.

The \$20k data-based housing allowance floor meets our established criteria and more accurately represents the current price of vacant rental housing appropriate for junior enlisted personnel. Runzheimer's method pinpoints desirable residential communities with high relocation activity within reasonable proximity to military installations. The \$20k-based floor would function effectively as a safety net to ensure that all members can procure adequate housing regardless of duty location.

*The 7<sup>th</sup> QRMC recommends that the \$20k two-bedroom rental expense data be used to establish a floor for members with dependents. The floor for E-1s to E-4s without dependents should be determined from efficiency rental data; and E-5s and above without dependents, by one-bedroom rental data.*

#### 50 PERCENT OFFSET

The 50 percent offset, established by Congress in 1986, reduces a member's VHA by up to 50 percent when the housing allowance exceeds his or her actual housing expenditure. The offset was implemented to counter the perception that some members were realizing "windfall" profits from their housing allowances.

#### Impact of the 50 percent Offset

The offset changes the marginal price of housing for many service members. That is, given a service member who is contemplating renting a unit for less than his total allowance, the offset reduces by half the cost of obtaining additional housing. The following example serves to illustrate this point. A military member, upon arriving at a new duty station, locates rental housing for \$500 per month. Prior to entering a lease agreement, however, the member contacts the personnel office and discovers that his or her new housing allowance entitlement is \$600. The member now faces an interesting decision. Opting for the \$500 rental will produce \$550 per month in housing allowance.<sup>56</sup> However, instead of pocketing the extra \$50 per month, the member may choose to live in higher-quality rental housing. If the member locates a unit for \$600, then the housing allowance will be \$600 per month. Although relinquishing an extra \$50 in cash, he or she enjoys \$100 worth of additional housing.

---

<sup>56</sup>Under the current 50 percent offset provision, when a member's THA exceeds his housing expenses, the member's VHA is reduced by an amount equal to 50 percent of the difference not to exceed the total VHA. In this case, it is assumed that BAQ is \$400 and VHA is \$200. Because 50 percent of the difference between housing expenses and THA is \$50, the member's entitlement would be \$550.

Whichever decision the member makes, there is no way to realize the maximum benefit from the housing allowance. The 50 percent offset forces him or her to either forego a portion of the housing entitlement or to consume a larger-than-needed quantity of housing. Such an individual would likely rather have the \$100 in additional cash than the \$100 in additional housing. DoD realizes the most benefit—in terms of member satisfaction and propensity to remain in a military career—from each HA dollar if the member can maximize his or her own well-being by spending that dollar freely. Thus, the 50 percent offset prevents DoD from spending its housing money as effectively as possible.

Members who are affected by the offset have housing costs that are at least 20 percent below the national average. A member may fall in this category for any one, or combination of, three reasons:

- Member's housing allowance is too high.
- Member has atypical housing demand.
- Member desires to economize.

Speaking from a purely economic standpoint, the offset constrains consumption and thus reduces the overall member benefit realized from the housing allowance. However, the stated intent of the offset is to reduce windfalls. In judging the offset, it must first be determined if it works toward reducing windfalls. Assuming the offset is effective in this respect, the question remains as to whether the cost savings and benefits from reducing these windfalls exceed the cost to both DoD and its members.

### **Data Analysis**

The previous section listed three reasons why a member would be affected by the offset. Using historical data, this subsection examines how the offset pertains to these three categories. The purpose in doing so is to disengage from economic theory, and attempt to interpret what the actual effects of the offset have been since its inception in 1986.

Areas Where Housing Allowances Are Too High. Consider a service member who moves into an area that, for one reason or another, offers housing allowances that are overly generous. It seems logical that the member's selection of rental housing will be heavily influenced by the amount of the local housing allowance entitlement. Because much of the incentive to economize has been removed by the offset, a likely result is that the member will consume more house than is typical for his or her pay grade and dependency status.<sup>57</sup> Eventually, this member's rent becomes a data point in the VHA survey, thus perpetuating an artificially high VHA rate.

---

<sup>57</sup>See Camm, *Housing Demand and Department of Defense Policy on Housing Allowances*, 91-92, for a complete discussion of the economics of the offset and how constraining the consumption of the housing allowance increases total expenditures on housing services.

For instance, the housing market in Anchorage, AK, has been soft in recent years.<sup>58</sup> An E-4's total housing allowance in Anchorage is \$749 per month, while the local 2-BR FMR is only \$469 and the Runzheimer rental expense for a \$20K family in Anchorage is \$535. Thus, in a system that is designed for members to absorb 20 percent of their housing expenses, E-4s in Anchorage are receiving around 15 percent of the typical housing expenses for their income group. No doubt, numerous factors inflated the Anchorage housing allowances initially; however, the 50 percent offset policy is a likely reason that the Anchorage rates continue to remain artificially high. From the standpoint of protecting DoD against inflated housing allowances rates, the current offset policy has not only proved ineffective, but probably exacerbates the problem.

Members With Atypical Housing Demand. Members who have a below-average demand for housing will typically pay less for housing and, are therefore, more likely to be affected by the offset. One easily identifiable group of DoD members who have lower-than-standard housing demand are those who co-occupy housing, known as sharers. In 1989, 5.9 percent of DoD members residing off-base shared their quarters. Figure 4-24 shows the percentage of VHA-eligible members by pay grade who were sharing in both low- and high-cost areas.<sup>59</sup>

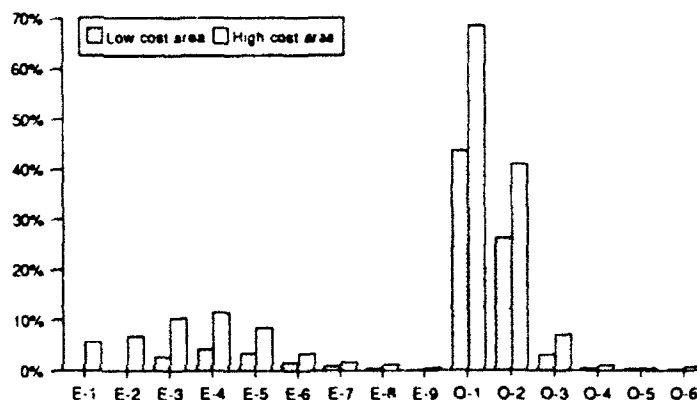


Figure 4-24. Sharers in Low and High Housing Cost Areas

Figure 4-24 makes two points. First, sharers are not typical in terms of their demand for housing.<sup>60</sup> Second, local housing costs have a large influence on the decision to share: members in high-cost areas are twice as likely to share as otherwise similar members in low-cost areas.

*Evidence suggests that the offset reduces the propensity to share by reducing the associated monetary benefit. During the four years following the inception of the offset, the number of*

<sup>58</sup>Between 1985 and 1989, while FMRs in Anchorage decreased by 10.7 percent, members reported housing costs increased by 0.2 percent.

<sup>59</sup>Joint Service Housing Allowance Study, M-1.

<sup>60</sup>An exception being single members in the grades of O-1 and O-2.



members sharing housing shrank by 20 percent.<sup>61</sup> While a reduction in the number of sharers may reduce the perception of windfalls, it seems unlikely that DoD realizes any substantial cost savings. Instead, it appears that members are learning how to consume their entire allowance on housing.

**Economizers.** The final group affected by the offset are the economizers—those members who willingly forego \$2 of additional house in exchange for \$1 of additional cash. Some people remain thrifty their entire lives, thus economizing by choice. However, many economizers do so out of necessity. We would expect members with large families and low disposable income to have the greatest need to economize. Also, the propensity to economize should be greater in high-cost areas. Figure 4-25 shows that 24.5 percent of members residing in the highest housing cost MHAs pay the offset, as opposed to only 11.3 percent in the lowest-cost MHAs.

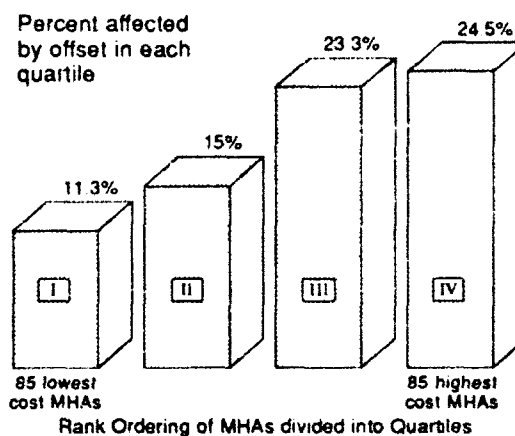


Figure 4-25. Offset Impact by Level of Housing Cost

The results presented in Figure 4-25 become particularly disturbing when coupled with the information in Figure 4-26. In 1990, DoD recouped \$50 million in offset, 51 percent of which came from enlisted members in grades E-1 to E-5. Junior enlisted personnel have the smallest disposable incomes and thus the greatest motivation to economize. What Figures 4-25 and 4-26 say is that a policy designed to prevent windfalls recouped over \$25 million from junior enlisted during 1990. Furthermore, the majority of the affected junior enlisted people were assigned to high-cost areas—the same

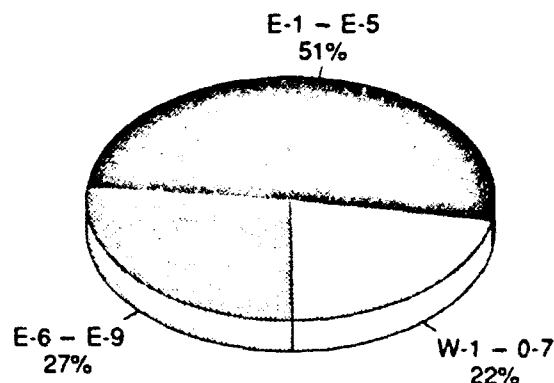


Figure 4-26. 1990 Offset recoupments: \$50M

<sup>61</sup>Ibid., Appendix M. Applying population weights from the FY 1992 VHA population to JSHAS sharer percentages shows that the percentage of the VHA population sharing housing dropped from 7.5 percent in 1985 to 5.9 percent of the VHA population in 1989.

areas where FMRs and Kunzheimer data indicate that junior enlisted housing allowances are too low.

### Summary

DoD's current offset policy is a prime example of misguided public finance. DoD spends about \$6 billion annually in housing allowances and recoups less than 1 percent of this amount (\$50 million) via the offset. While \$50 million can't be discounted as inconsequential, the amount doesn't seem justified by the costs. In the long run, inflationary effects of the offset may actually cost DoD money in areas, such as Anchorage, that have experienced declining housing markets.

Moreover, the administration of the offset creates a bothersome and costly audit trail. Members must produce lease agreements and annually certify their housing expenses. Clerks from unit and base personnel offices to the finance center are involved in documenting these expenses to determine the offset amount. It would be interesting to know the manpower costs that would, in business accounting, be deducted from the \$50 million recovery.

Ultimately, it remains unclear how much the offset actually serves to reduce windfalls. Significant housing allowance windfalls are experienced only by sharers, and this group appears to be changing its

behavior in response to the offset. Furthermore, the decision to share is directly related to the cost of housing in an area. Thus, sharers do so for economic reasons apart from their atypical taste for low-amenity housing. In any event, the offset has the greatest impact on those who can least afford it—junior enlisted personnel. Figure 4-27 shows, that as a percentage of RMC, junior enlisted personnel pay the most in offset.

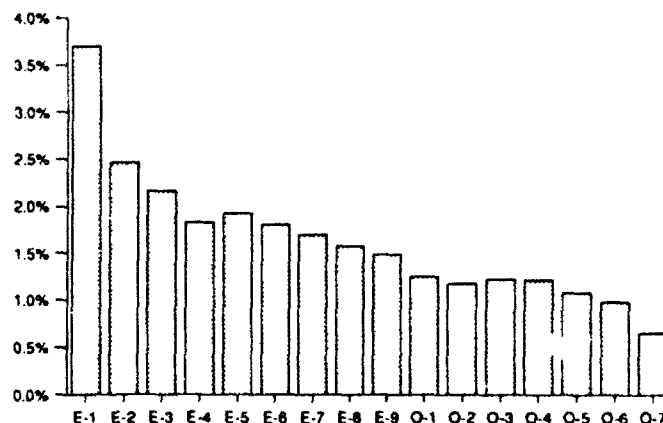


Figure 4-27. Offset Recoupments as a Percentage of RMC

The 7<sup>th</sup> QRMC concludes that the offset is a failure, and data suggest that it is more likely to distort housing consumption than to eliminate windfalls.

### HOUSING ALLOWANCE PROPOSAL

This section begins by reiterating the 7<sup>th</sup> QRMC's set of objectives for the housing allowance. Then, we develop simplified methods for computing housing allowances that meet the stated objectives. These alternative methods are then used to compute housing

allowances for a subset of the DoD population. Last, we outline the conceptual framework of an alternative housing allowance system.

### **Objectives of the Housing Allowance**

- Objective 1: Housing allowances should be sufficient to procure adequate housing. The housing allowance should guarantee that members at all income levels can find decent quality housing regardless of their duty location. Furthermore, both DoD and the member will realize the maximum benefit from the housing allowance if the consumption of the housing allowance is unconstrained.
- Objective 2: Reassigned service members should suffer no financial harm as a consequence of housing price variations. The military services require their members to make frequent moves. Housing price variations between locations are often substantial, and typically account for most of the total cost-of-living variation. So long as DoD only accounts for variations in housing *expenditures*, members in high housing cost areas will be disadvantaged. For a member's total utility,<sup>62</sup> or quality of life, to remain constant, DoD must recognize housing *price* variations.
- Objective 3: The hierarchy of housing allowance rates should enable members to rent housing comparable to that occupied by civilians at similar income levels. First, housing allowances should be constrained to reflect the DoD hierarchy—that is, they should not decrease as the member increases in grade. Second, the housing allowance should, in general, permit the member to rent housing commensurate with that of his civilian counterparts.

### **Price-Based Housing Allowances**

For all the reasons outlined in the Rate-Setting Methodology section of the report, the 7<sup>th</sup> QRMCM believes that a price-based housing allowance (PHA) based on housing cost data collected from an external source (vice a member survey) would improve the equity and cost-effectiveness of the housing allowance program.

In this section, we present two methods for computing price-based housing allowances. The first approach (PHA-I) would permit members to buy the same quantity of housing

---

<sup>62</sup>In economic terms, the utility that an object has for a person is the satisfaction he derives from it. Thus, a member's total utility refers to the satisfaction he derives from the consumption of housing and non-housing goods and services.

services in all locations.<sup>63</sup> The second approach (PHA-II) permits members to buy the quantity of housing services that yields the *same satisfaction or utility* across duty areas.

The PHA-II holds members harmless as they move about by compensating them for changes in both housing costs and housing benefits. In particular, the net effect of a move on a family's well-being is approximated by the change in *consumer surplus* precipitated by the move. Appendix R provides the theoretical development of both the PHA-I and PHA-II allowance models.

The following subsections compare the PHAs with current HA levels for E-1s to E-4s in all MHAs, and for E-6s in a representative sample of MHAs. To form a basis for comparison with THA levels, the PHAs are computed using current absorption rates.

Comparative Analysis: Price-Based HA vs. Current HA. E-6s with dependents. Using the formula for the consumer surplus-adjusted allowance derived in Appendix R (equation 3), Figure 4-28 shows the PHA-I, PHA-II and the current E-6 THA for 93 MHAs. The MHAs are sorted left-to-right, from highest to lowest PHA-I housing allowance. This makes the E-6 THA line fluctuate, but serves to illustrate the relationship between the two price-based housing allowances. Note that the two allowances are very close in value, with PHA-II being slightly less in the lowest and highest housing cost areas. Appendix S contains a more detailed depiction of Figure 4-28 that identifies the MHAs and gives the E-6 VHA population for each.

E-1s to E-4s. The rental expense data collected at the \$20,000 income level for the housing allowance floor can be used to establish price-based housing allowances for all E-1s to E-4s, with and without dependents. To provide a comparative overview, Figure 4-29 shows the E-4 with dependents THA plotted against PHA-I and PHA-II. Note that the relationship between the latter two allowances is consistent with that observed in Figure 4-28. (Appendix S lists E-4 THA, with and without dependents, and the price-based allowances for each MHA.)

The right-hand portion of Figure 4-29 shows several MHAs where the E-4 THA exceeds the price-based allowances. In many of these MHAs, the E-4 THA is equal to the BAQ amount, \$341. The horizontal lower-bound on the THA line delineates those MHAs where the BAQ minimum applies. (The same behavior is observed, to a lesser extent, in Figure 4-28.) As previously mentioned, the concept of a BAQ-minimum housing allowance is not cost efficient—Figures 4-28 and 4-29 serve to emphasize this point.

Price-Based Housing Allowance Cost. An inspection of Figures 4-28 and 4-29 seems to indicate that providing a price-based allowance, at current absorption levels, would be considerably more expensive for DoD than the current housing allowance program. This is not the case, however. Table 4-2 shows that DoD disburses \$1,523.2 million per year in housing allowances to E-1s through E-4s and E-6s in the MHAs that were surveyed. At the

---

<sup>63</sup>The PHA-I approach is used in the Housing Allowance Floor section of this chapter

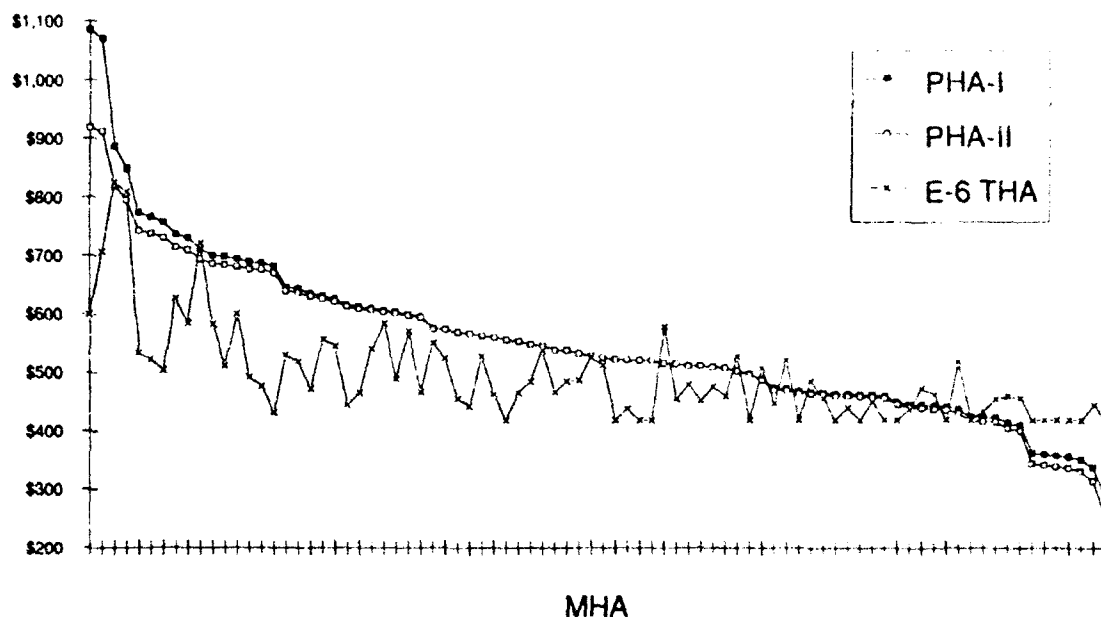


Figure 4-28. E-6 Price-Based Housing Allowance

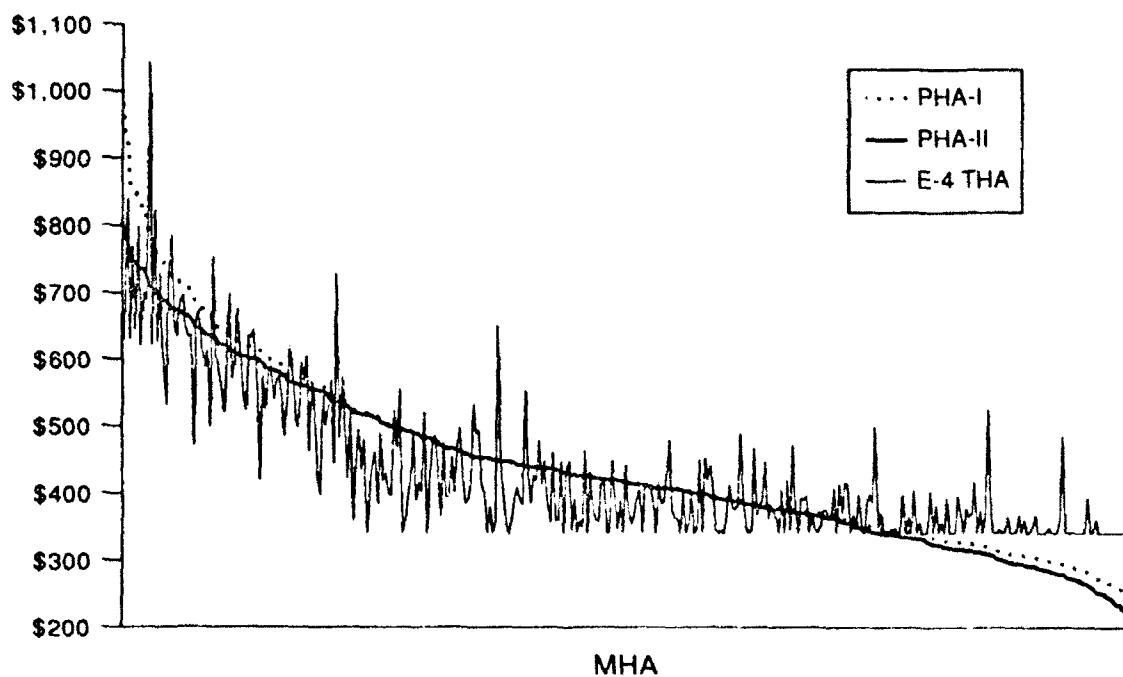


Figure 4-29. E-4 Price-Based Housing Allowance

PHA-II rates, this cost would be \$1,516.9 million (the cost of PHA-I is \$1,560.3 million). Although the PHA-II allowance would be greater than the current HA in 76 percent of the MHAs,<sup>64</sup> the program costs differ by less than one-half of 1 percent.<sup>65</sup>

**Table 4-2. Price-Based Housing Allowance Program Cost**

Annual Income	External Survey Specification			Pay grades Represented		Annual HA Program Cost (\$M)		
	Family Size	Rental Profile	# of MHAs Surveyed	Pay grade(s) & Dependency	% of Pay grade Represented	PHA-I	PHA-II	Current THA
\$30,000	4	1,300 sq ft apartment, 5 rooms, 3 BR, 2 baths	93	E-6 with dependents	55%	\$456.8	\$447.4	\$455.2
\$20,000	3	900 sq ft apartment, 4 rooms, 2 BR, 1 bath	332	E-1 to E-4 with dependents	100%	\$858.5	\$833.0	\$834.5
\$20,000	1	600 sq ft efficiency apt, 1 room, 1 bath	332	E-1 to E-4 without dependents	100%	\$245.0	\$236.5	\$233.5
Total Costs						\$1,560.3	\$1,516.9	\$1,523.2

The reason that the price-based allowances are essentially cost-neutral with respect to the current housing allowance program stems from the earlier finding concerning the current methodology. Recall that areas with small VHA populations tended to have relatively lower housing allowances and that the current methodology seems most effective in low-to-moderate housing cost areas with large VHA populations. Not surprisingly then, many of the areas where the current housing allowances exceed the price-based allowances contain large VHA-eligible populations. A small decrease in the housing allowances of these MHAs would pay for a large increase in the housing allowances of less densely populated areas. Figure 4-30 illustrates this point. Of the 93 MHAs examined, in only 33 did the E-6 THA exceed the PHA-II allowance. However, in terms of *number* of members, DoD is overpaying more members than it is underpaying. Figure 4-30 shows that while the number of individual overpayments is greater, the overpayment amounts are less than the largest underpayment amounts.

We conclude that, at current absorption levels, the cost of providing priced-based housing allowances would essentially be the same as current housing allowance costs for E-1s to E-6s. For implementation purposes, it would be a simple matter to achieve a PHA that is exactly

<sup>64</sup>The following schedule shows the percentage of MHAs where the PHA-II exceeded the current HA:

	<u>with dependents</u>	<u>without dependents</u>
E-6	65%	-
E-4	50%	80%
E-3	72%	87%
E-2	77%	97%
E-1	77%	98%

<sup>65</sup>Cost estimates are based on rental profiles. The application of *rental equivalent* profiles for home owners may result in higher program costs at the \$30,000 income level.

cost neutral. (E-6s and below comprise over 60 percent of the VHA population.) It remains uncertain whether cost-neutral price-based housing allowances for higher pay grades would yield like absorption rates. External surveys at higher income levels would have to be performed before any solid conclusions could be reached. *However, whatever the result, we conclude that either PHA model would provide a more equitable and cost-effective distribution of available HA funds*

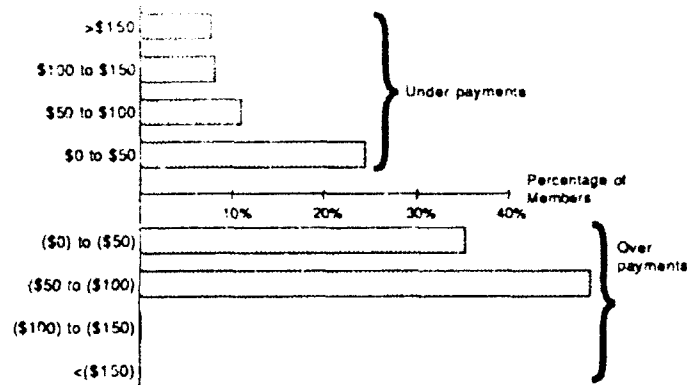


Figure 4-30. PHA-II Allowance Minus E-6 THA

### Recommendation

The 7<sup>th</sup> QRM C believes that price-based housing allowances would increase the effectiveness of the HA program, and would fulfill the objectives outlined at the beginning of this section. The PHA approach is simple to explain and implement, yet theoretically defensible. This subsection presents the conceptual framework for a DoD housing allowance system based on external housing price data.

**System Design.** There are three critical factors in the design of the external survey. The first concerns the appropriate housing profiles and residential communities to survey. DoD should not blindly assume that rental profiles established by Runzheimer, or some other source, apply specifically to DoD households. In the higher pay grades particularly, DoD should use member survey data to help establish rental profiles based on the size and type of dwellings where members typically reside.<sup>66</sup> Member survey data can also serve to identify communities preferred by DoD households. Correctly used, some form of a member survey should refine the results of the external survey. However, the member survey data should be used with discretion, and DoD should remain mindful of its potential biases.

The second critical factor concerns which income levels and family sizes to survey. Housing allowances must be established for 23 pay grades, with and without dependents.

<sup>66</sup>The higher pay grades are of concern because homeownership becomes an issue. Housing data demonstrate that owners tend to live in larger dwellings than renters. About 50 percent of DoD households own the home in which they reside. Thus, at any income level, the greater the percentage of homeowners, the more a rental profile will understate the quantity of house consumed. The current rate-setting methodology handles this issue by assigning a rental equivalent value to the quantity of house consumed by homeowners. By using the member survey to establish rental profiles, a variation of the same method can be employed. The rental profile would not represent the quantity of house members rent, but the quantity of house members typically reside in.

RMC varies from around \$15,000 per year for an E-1 to \$95,000 for an O-7. It is neither cost-effective nor necessary to survey the income level of each pay grade. Surveying five or six income levels per area, at appropriate intervals should suffice.<sup>42</sup> Models can be developed to "fit" data points for all the pay grades based on the five or six anchor points. Because separate rates must be set based on dependency status, about 10 to 12 surveys would be required per area.

The third critical factor concerns survey frequency. Initially, of course, all MHAs would have to be surveyed at the appropriate income levels and family sizes. However, following this initial survey, MHAs could be surveyed on a rotating basis. Thus, only one-third or one-fourth of the MHAs would be fully surveyed each year. One survey, at the median income level and family size, would be conducted in each of the remaining MHAs. These data would provide a rental expense growth index to update the previous year's housing allowances at all pay grades in that MHA.

The proposed price-based HA system would consist of one allowance, based and adjusted entirely on housing costs. Using the \$20k data as the bottom leg of the housing allowance hierarchy would remove the justification for an adequacy floor. Finally, to maximize the housing allowance benefit, DoD should not constrain the consumption of the housing allowance in any manner (e.g., no offset).

System Administration Cost. There are two major administrative costs associated with the priced-based HA system: (1) gathering housing price data (external survey), and (2) conducting the member survey.

The 7<sup>th</sup> QPMC hired Runzheimer International to obtain cost-of-living data for this analysis. Based on Runzheimer's billing, we estimate the data costs to implement the system outlined above would be \$500,000 for the first year. Starting in the second year, the cost would drop by 60 to 70 percent, under a rotating schedule for surveying MHAs.

The current member survey costs about \$300,000 per year in overhead costs.<sup>43</sup> Thus, assuming the price-based HA system called for a member survey every three years, the annual cost would be \$100,000.

In 1992 dollars, the start-up cost of the price-based HA program would be about \$500,000. Thereafter, the annual cost of obtaining housing price data and conducting periodic member surveys would be about \$250,000 per year.

---

<sup>42</sup>Based on previous discussion, \$20,000 seems an ideal anchor point for the allowances. Under such a system, the \$20,000 floor would become the first data point in the overall housing allowance framework.

<sup>43</sup>The opportunity costs associated with members completing the VHA survey are not included.



## SUMMARY OF FINDINGS AND RECOMMENDATIONS

### System-Level Reforms

**Finding:** Housing allowances should be directly linked to the actual cost of housing.

**Recommendation:** Adopt a single housing allowance for the United States, as recommended earlier by the JSHAS. The housing allowance rates should be determined exclusively from local housing costs.

**Finding:** Local housing costs minus the national absorption amount are less than BAQ in some areas. Thus, the payment of BAQ as a minimum housing allowance is inconsistent with the purpose of housing allowances, which is to reimburse members for a portion of rental expenses. Furthermore, the BAQ creates inequities in the system and inefficiencies in DoD's disbursement of housing allowance dollars.

**Recommendation:** Eliminate the BAQ minimum. This will correct an inequity within the system and increase the cost-effectiveness of the housing allowance program.

**Finding:** Because of the erosion of BAQ, the housing allowance provided to most active members on active duty has decreased in value by 30 percent over the past two decades. This issue merits further analysis.

**Recommendation:** Consider providing Reserve members on active duty, regardless of tour length, the full housing allowance (the equivalent of BAQ+VHA under the current system). This will restore the value of the housing allowance provided to Reserve members in 1971.

**Finding:** The payment of rental expenses in excess of members' allowance not consumed by members is not a cost-effective use of resources. It is not supportive of members' welfare and does not provide the greatest benefit if the intent of the program is to ensure that the greatest benefit is obtained.

**Recommendation:** Eliminate the budgetary cap.

### Cost-Saving Method

**Finding:** There are four major findings related to the housing allowance program's methodology:

- DoD's current methodology distributes housing allowance rates disproportionately, resulting in housing allowance rates in the lowest and highest housing cost areas do not accurately reflect the true price of housing, resulting in underpayments by DoD in high cost areas and overpayments in low cost areas.

- The DoD member survey produces insufficient data points to set meaningful housing allowance rates for all MHAs, pay grades, and dependency statuses. The current program's method for pooling data to overcome sample size problems systematically disadvantages members in areas with small VHA populations.
- Member surveys are the best method for DoD to understand the housing consumption behavior of its population. However, the member survey is a flawed source for rental expense data.

**Recommendation:** In the long term, DoD would be best served by a well-constructed external survey of housing price data to establish housing allowances for all grades and locations. DoD should use member survey data to aid in the initial design and subsequent refinements of the external survey.

#### **Interim Measures**

**Finding:** The weaknesses in the current rate-setting methodology identified above particularly disadvantage two groups within DoD. The first group is the junior enlisted members, who do not have sufficient disposable income to overcome the consequences of low housing allowances and often cope by renting less-than-adequate housing. The second group consists of members assigned to isolated resort areas, whose allowance rates tend to be considerably lower than actual rental costs.

**Recommendation:** Until DoD implements a housing allowance system based on external price data, the following near-term protective measures should be afforded to junior enlisted members and members assigned to isolated resort areas:

- DoD should establish a housing allowance floor that will enable military members to obtain adequate housing under some reasonable, consistent definition. The QRMCM recommends that DoD establish the floor at the \$20,000 annual income level, using the following rental profiles:
  - Without Dependents (E-1 to E-4): Efficiency apartment
  - Without Dependents (above E-4): One-bedroom apartment
  - With Dependents (all grades): Two-bedroom apartment
- DoD should use external housing price data to establish HA rates in resort areas and other duty locations where the current HAs are erroneously low.

## ALLOWANCES

### CHAPTER 5—CONUS COST-OF-LIVING ALLOWANCE (COLA)

#### INTRODUCTION

Is today's allowance structure adequate to handle the growing disparity in non-housing costs between U.S. regions and cities? If allowances are to function effectively and credibly, they must be responsive to major cost-of-living differences between assignment locations. These cost differences have increased significantly in the past 10 years—a trend likely to continue.

Members of the uniformed services move about the country as a requirement of their service—often with no choice. Over a career, a member is likely to be assigned to a variety of low-cost, moderate-cost, and high-cost areas. Private sector pay scales tend to reflect local living costs in U.S. cities or regions, but the military pay tables do not. The Variable Housing Allowance (VHA), introduced in the early 1980s, is the only pay adjustment intended to account for regional differences. There is no pay element to compensate for variations in non-housing costs.

The services have expressed their concern about members assigned to high-cost areas.<sup>1</sup> The following actual situations were reported to the QRMC (see Appendix T):

- A Coast Guard Boatswain Mate First Class (E-6) reported to Station Brant Point, Nantucket, MA, from a duty station overseas. He complained that there was no difference in prices between the two locations. Overseas, because he qualified for a cost-of-living allowance (COLA), he was able to maintain a decent standard of living for his family. But, his paycheck was cut by one-third upon his arrival in Nantucket, and he wondered how his family would make ends meet. Nearby, a Navy chaplain and a social worker, both assigned to Coast Guard Air Station Cape Cod, MA, cited the high cost of living as a significant factor contributing to stress experienced by families stationed on Nantucket.
- The Commanding Officer of Naval Station New York attempted to reduce the burden of high transportation costs (229 percent above that of the average U.S. city<sup>2</sup>) for his personnel. After failing to gain approval for several initiatives to provide relief for his

---

<sup>1</sup>In response to the Assistant Secretary of Defense, Force Management and Personnel's 22 Jan 90 memorandum, the Army, Navy, and Coast Guard all expressed a need for a CONUS cost-of-living pay adjustment.

<sup>2</sup>Based on Runzheimer International Cost of Living Analysis prepared for NAVSTA New York, April 1988.

personnel, he wrote and asked for help. He pointed out that without some type of financial assistance for military members, it will be difficult to attract high quality personnel to the new home ports and ships in the New York City area.

Two basic concerns merit consideration:

- Are service members' standard of living significantly degraded when assigned to high-cost areas?
- Will members ever recover the lost purchasing power from having been assigned to a high-cost area?

Confirming the anecdotal evidence, the 7<sup>th</sup> QRMCM found that non-housing costs vary from 5 percent below to 19 percent above the national average. It is possible for a member to move to a high-cost area and suffer a more severe loss of non-housing purchasing power than that resulting from a reduction in rank. Furthermore, the disparity between high- and low-cost areas is growing. It is unlikely that members assigned to the highest-cost areas will ever be able to regain the lost purchasing power over their careers.

Some service members elect to retire, or otherwise leave the service, rather than accept an assignment to a high-cost area. Reenlistment rates over the past ten years have been lower in high-cost areas than low- or moderate-cost areas. These problems are particularly acute for the Navy and Coast Guard, services with a large percentage of their forces assigned to high-cost coastal areas. The cumulative effect of these problems ultimately jeopardizes unit readiness as well as demoralizing members and their families. To uphold the tradition that the services *take care of their own*, some corrective measure is needed.

The dual purpose of this chapter is to validate the need for a CONUS cost-of-living allowance (COLA) and design a methodology for calculating the new allowance.

## RESULTS IN BRIEF

The 7<sup>th</sup> QRMCM finds that non-housing cost-of-living differences are great enough to warrant the establishment of a CONUS COLA. The COLA is needed to maintain a relatively equivalent quality of life for members assigned to high-cost areas, specifically where non-housing costs exceed 5 percent above the national average. Such a CONUS COLA would, in aggregate, insure members against significant financial loss over a career.

*The 7<sup>th</sup> QRMCM recommends establishing a CONUS cost-of-living allowance payable to members in locations where the cost of living not defrayed by other allowances, in-kind provisions, or military support facilities is more than 5 percent above the national average.*

## BACKGROUND

### Variations between Low-Cost and High-Cost Areas

According to James C. Hughes, Marketing Manager/Senior Consultant, Living Cost Division, Runzheimer International (1991), "The index gap between Standard City U.S.A.,<sup>3</sup> or average city, and high-cost locations continues to widen. This statement is valid and defensible if housing is included or excluded."

Runzheimer International has compiled data illustrating purchasing power differentials for 17 cities between 1980 and 1990. Table 5-1 shows the range from high to low for two sampled cities.<sup>4</sup> The cost-of-living differential between an average city in the CONUS and San Francisco, CA. grew

from 23.9 percent to 42.5 percent, for a rate of over 19 percent. This compares to a decline in cost-of-living in San Antonio, TX, during the same ten-year period and indicates that the gap between these two cities, for instance, has widened over the period from 33 percent to 53 percent. In addition, the coefficient of variation, which measures the degree of variability in the sample relative to the mean, went from 9.5 percent to over 12 percent. This is a better measure of dispersion when comparing different years.

Research by Mary K. Kokoski, Division of Price and Index Number Research, Bureau of Labor Statistics (BLS), on inter-area consumer price differences confirms that the cost-of-living differences between low-cost and high-cost areas has increased.<sup>5</sup> She compared 1973 and 1988 index values for food at home for five northeastern cities (see Table 5-2). The index ranged in 1973 from 96.2 percent to 103.2 percent, a 7 percent difference. In 1988, for the same cities, the index ranged from 91 percent to 112 percent, a 21 percent difference.

**Table 5-1. Cost-of-living Differential.**

Location	1980	1990	Differential
San Francisco, CA	123.9%	142.5%	+18.6%
San Antonio, TX	91.1%	89.8%	-1.3%
Difference	32.8%	52.7%	N/A

**Table 5-2. Index Values for Food at Home in Selected Cities (average=100)**

City (Northeast)	1973	1988
Boston	102.2	102.6
Buffalo	96.2	98.8
New York / Northeastern NJ	103.2	112.0
Philadelphia	99.2	102.2
Pittsburgh	95.2	91.0

<sup>3</sup>Standard City is a fictional average-cost location based on an analysis of the living costs in over 160 representative U.S. cities. *Runzheimer Administrators Guide*, 1990, Runzheimer International, 11 (maintained in 7th QRMC files).

<sup>4</sup>Runzheimer data are maintained in the QRMC files.

<sup>5</sup>Mary F. Kokoski, *New Research on Inter Area Consumer Price Differences*, Bureau of Labor Statistics, Washington, July 1991.

### Precedents for Locality Pay

Providing a cost-of-living supplement to people employed in high-cost areas is not a new idea. Military service members have been compensated for variations in cost-of-living as far back as 1942, when the Overseas Station Allowance program was introduced. Today this program consists of a housing allowance, a cost-of-living allowance, a temporary lodging allowance, and an interim housing allowance. In the CONUS, the Variable Housing Allowance (VHA) program was established in 1980 to address regional housing cost variations only.

Civilian agencies of the U.S. government similarly pay cost-of-living supplements. For example, the State Department provides assistance to all federal civilians employed in foreign areas, and the Office of Personnel Management (OPM) supplements federal civilians employed in high-cost non-foreign areas.

The recently enacted Federal Employees Pay Comparability Act of 1990 (FEPCA), for the first time, recognized the need to provide regional pay differentials for white-collar government employees. Beginning in 1994, this new law will supplement the salaries of federal civilians in the CONUS when an area's non-federal salary average is greater than 5 percent over the white-collar, General Schedule (GS) salary.

Cost-of-living supplements are also prevalent in private industry. Boeing, AT&T, Nielsen, and General Electric, to name a few corporations, routinely adjust wages for employees transferring to new locations to maintain their purchasing power.<sup>6</sup> Runzheimer reported in its 1990 biennial publication that the percentage of U.S. companies providing cost-of-living allowances increased to 51 percent in 1989 from 37 percent in 1987.

The QRMCI also reviewed foreign military compensation systems of five countries: Australia, Canada, France, Germany, and the United Kingdom (7<sup>th</sup> QRMCI Staff Analyses, GSP A—*Foreign Military Compensation Systems Review*). Each has adopted a form of locality pay adjustment based on geographic variations in living costs.

### Impacts

"Few things are more important for morale than that service members believe they are being treated as fairly as possible and conversely, few things undermine morale more than a sense of unfair treatment."<sup>7</sup> This quotation refers to *equity*—a key principle underlying any compensation system. Today a service member assigned to a high-cost area may rightfully conclude that his or her compensation is not only inadequate, but unfair because the

---

<sup>6</sup>Personnel Policies Forum, *Wage and Salary Administration*, Bureau of National Affairs, Inc., PPF Survey Number 131, July 1981, 11.

<sup>7</sup>Department of Defense, Office of Secretary of Defense, *Military Compensation Background Papers*, Washington, June 1987, 7.

standard of living it supports is markedly inferior to that of a fellow member with otherwise identical status and responsibility assigned to another location. The fact that military members move frequently and have little say in their assignment makes the issue of location-determined equity particularly acute. In fiscal year 1990, the average length of time between permanent change of station (PCS) moves for DoD members (E-4 and above) in CONUS was 2.3 years.<sup>8</sup>

Putting this on an individual basis, Figure 5-1 shows the increased cost-of-living a recently promoted E-5 faces when transferred from Norfolk, VA, an average cost-of-living area, to four high-cost areas. The dotted line represents the annual increase in basic pay resulting from a promotion from E-4 to E-5 plus a longevity step from four to six years of service. The bars show the money this E-5 would need to maintain his or her Norfolk-level purchasing power. This shows that assignment to either San Francisco or New York City would more than wipe out the \$1,700 pay increases earned through promotion and longevity.<sup>9</sup>

Figure 5-2 shows a recently promoted O-4 assigned from Norfolk to the same high-cost areas. The promotion (O-3 to O-4) and 12 year longevity raises are effectively canceled by a move to New York City and almost negated in San Francisco.

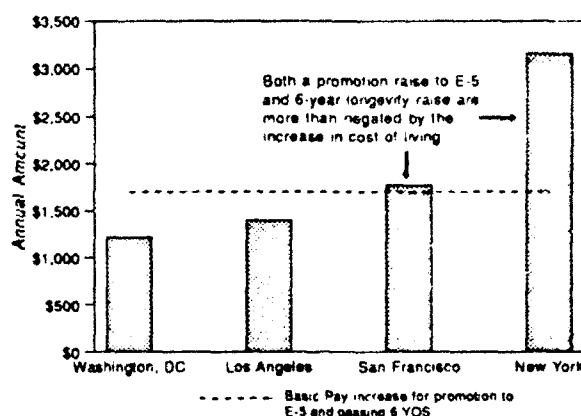


Figure 5-1. Cost-of-Living Increase for an E-5 Moving from Norfolk, VA to Four High-Cost Areas

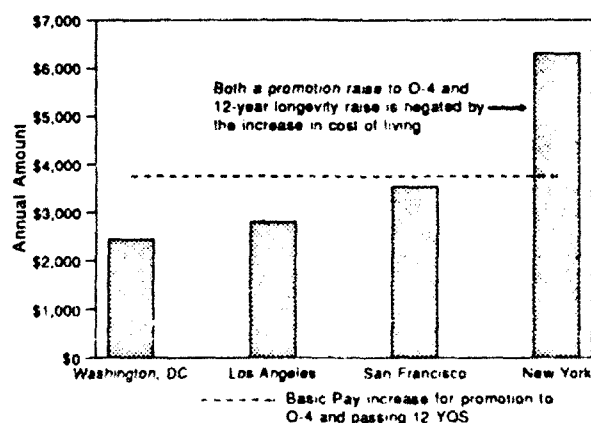


Figure 5-2. Cost-of-Living Increase for an O-4 Moving from Norfolk, VA to Four High-Cost Areas

<sup>8</sup>DMDC Active Master Data File, September 1990.

<sup>9</sup>Cost-of-living figures are from the Runzheimer survey. Dollar totals exclude housing costs and an amount equal to the current basic allowance for subsistence. Dollars were also adjusted to account for availability of base infrastructure, i.e., commissary, exchange, and medical facilities.

Retention data from 1980 to 1990 (all services) show that the average reenlistment rate for E-3s through E-5s is 2.5 percent lower in areas with costs-of-living at least 8 percent above Runzheimer's Standard

City.<sup>10</sup> Figure 5-3 shows the E-3 through E-5 reenlistment rates for CONUS areas with a cost-of-living both greater than and less than 8 percent above Standard City (analysis retained in QRM C files). The lower reenlistment rate in high-cost areas translates to about 265 reenlistment losses each year in these pay grades or, if a cost-of-living supplement were given, about 265 more reenlistments than would otherwise be expected.

While this number appears

small, it understates the total effect in two ways: it does not include the entire career force, nor does it account for those who separate rather than accept an assignment to a high-cost area. Furthermore, these losses cannot be offset by above-average retention rates in equally low-cost areas. There are no corresponding low-cost areas—the total range extends only from 5 percent below to 19 percent above the national average.<sup>11</sup>

When queried, all the services, with the exception of the Army, reported difficulty in filling billets in high-cost areas (Appendix U). As might be expected, the Navy, Marine Corps, and Coast Guard expressed concern because they have more personnel in coastal areas that tend to be high-cost. For example:

- The Navy enlisted assignment office indicated that a significant number of enlisted personnel separate rather than accept orders to high-cost areas.<sup>12</sup>
- In the Coast Guard, both the officer and enlisted assignment offices reported difficulty finding enough members to accept orders to several high-cost areas in the United

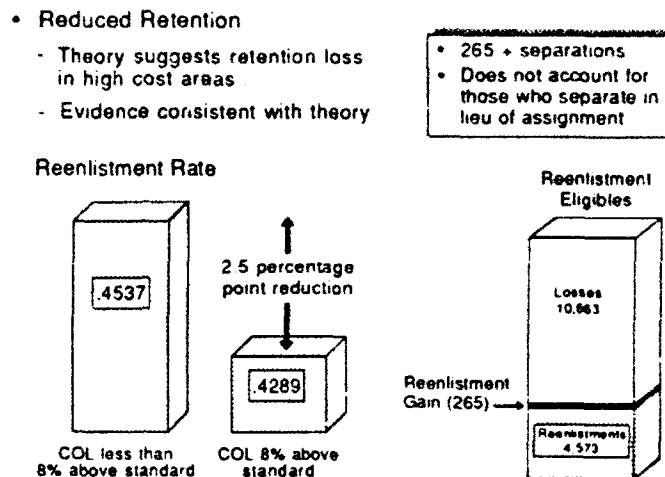


Figure 5-3. Retention Consequences

<sup>10</sup>This result corroborates the QRM C analysis using an Annualized Cost of Leaving (ACOL) methodology. The analysis showed that a four-year assignment to an area with a COL 10 percent higher than the norm will reduce the reenlistment rate by about 2 percent.

<sup>11</sup>See section on results.

<sup>12</sup>Department of the Navy, Bureau of Naval Personnel Memorandum for the Director, Research and Analysis, 7th QRM C, dated 1 July 1991 (see Appendix U).



States. This has specifically hurt the Coast Guard's marine safety mission. A large number of critical marine safety inspector positions have had to be filled by trainees, with a corresponding drop in mission effectiveness in those areas.<sup>13</sup>

- The Marine Corps reports that 20 percent of its officers separate from the service rather than accept orders to high-cost areas.<sup>14</sup>

### Other Considerations

Beyond the issue of equity, there also is evidence to suggest that members assigned to high-cost areas have a particularly difficult time making ends meet. An analysis of 1985 Defense Manpower Data Center (DMDC) information revealed that many military personnel living in high-cost areas (over 6 percent above the norm) take second jobs. For instance, 11 percent of service members in the E-4 through E-6 pay grades living in high-cost areas hold second jobs as opposed to 7 percent of those members in the same pay grades living in median and low-cost areas.<sup>15</sup> Similar statistics affect the Coast Guard. Thirty-five percent of the spouses of E-4s through E-9s living in big cities, suburbs of big cities, or resort areas hold jobs as opposed to 29 percent of the spouses who live in small cities or rural areas.<sup>16</sup> (Of course, job availability contributes to the difference.) This same DMDC survey also revealed that Navy members who live in the highest-cost areas in the CONUS expressed the lowest confidence in their families' ability to handle the high cost of living.<sup>17</sup>

### ANALYSIS OF COST-OF-LIVING VARIATIONS

The Variable Housing Allowance (VHA) was established in 1980 to account for regional variations in housing costs. There is no counterpart program in the CONUS for non-housing cost-of-living differences. As shown in notional Figure 5-4, service members cannot afford the same standard of living in a high-cost area that they can in an average-cost area.

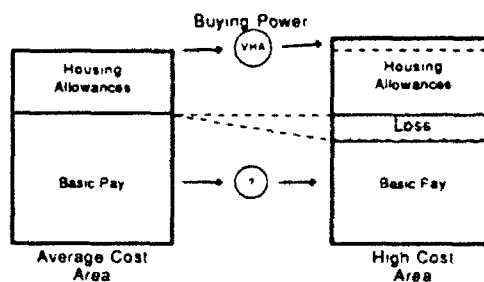


Figure 5-4. Lost Buying Power

<sup>13</sup>Commandant, United States Coast Guard (G-PS), letter to the 7th QRMC, dated 26 June 1991 (Appendix U).

<sup>14</sup>U.S. Marine Corp, Deputy Chief Of Staff For Manpower and Reserve Affairs, Memorandum to the 7th QRMC, dated 11 July 1991 (Appendix U).

<sup>15</sup>Defense Manpower Data Center, *Description of Officers and Enlisted Personnel in the U.S. Armed Forces: 1985* (A Report Based on the 1985 DoD Survey of Officer and Enlisted Personnel), Arlington, VA, October 1986.

<sup>16</sup>Ibid.

<sup>17</sup>Ibid.

The 7<sup>th</sup> QRMC analyzed a variety of locality allowances to determine how best to maintain members' relative standard of living regardless of duty location.

### Methodology

The QRMC's analysis of cost-of-living variations consisted of four steps. They were:

- Determine the best sources of data on cost-of-living differences between duty locations.
- Select appropriate income level and family size.
- Account for base infrastructure—that is, commissary, exchange, and medical savings.
- Select a sample of the total CONUS service member population.

### Determine the Best Data Source

*Government sources.* Generally, government sources do not provide sufficient detail to measure cost-of-living differences across the military population. Cost-of-living data are collected by the Bureau of Labor Statistics (BLS) primarily for the public sector. According to BLS representatives, the Consumer Price Index (CPI) and the Consumer Expenditure Survey (CES) are the two surveys that measure cost changes. However, the CPI uses too small a sample and does not publish cost data, and the CES reflects spending patterns, not cost-of-living differences (e.g., a higher proportion of income is spent on medical care in Florida as a result of an older population living there).<sup>18</sup>

*Private sector sources.* Next, the QRMC reviewed several private sector organizations that produce cost-of-living data and narrowed the list to these top six:

- American Chamber of Commerce
- Organizational Resource Counselors
- Employment Conditions Abroad
- Associates for International Research
- Economic Research Institute
- Runzheimer International.

Each of the first five had one or more shortcomings. The American Chamber of Commerce and Organization Resource Council have excellent credentials but limited national coverage. Employment Conditions Abroad is primarily international-oriented and is just now

---

<sup>18</sup>Based on 1991 discussions between members of the QRMC and BLS (Mr. George Stelluto, Head Compensation and Working Conditions; Mr. Pat Jackman, Senior Economist, CPI; and Mrs. Eva Jacobs, Chief, Division of Consumer Expenditures).

breaking into the CONUS cost-of-living reporting market. Associates for International Research also primarily focuses overseas. The Economic Research Institute's data base is not large enough and partially depends on American Chamber of Commerce information, which in turn relies on data voluntarily supplied by local businesses.

The QRMC concluded that Runzheimer International was the best source for measuring cost-of-living differences. The firm is a recognized leader in the cost-of-living research and consulting field, with 300 of the Fortune 500 companies and several federal agencies as clients. In 1990, Congress approved the Office of Personnel Management's reliance on Runzheimer International to calculate cost-of-living differentials for federal civilians located in Alaska, Hawaii, and U.S. territories (a Runzheimer fact sheet is at Appendix I).

*Area wage reports.* Area wage surveys have several shortcomings for determining military cost differentials between locations. First, wages measure the cost employers must pay their employees to be competitive in the local marketplace. This competitive approach is inconsistent with the military personnel system, which neither hires service members for a particular location nor competes with the local labor force. Military assignments are based on service needs worldwide, and no consideration is given to local labor markets.

Second, because wages tend to be lower in areas with more amenities compared to areas offering fewer amenities, some economists believe that wage differentials should be used rather than cost-of-living differentials. For example, relatively low wages in San Diego, CA, a high-cost-of-living area, reflect San Diego's favorable climate and good access to outdoor recreation. This hypothesis was recently reviewed by Margaret Barton, Systems Research and Applications (SRA) Corporation. Dr. Barton and others concluded that amenities cannot be accurately valued; therefore, it would be difficult to adjust the observed cost differential for amenities. The complete report is in the 7<sup>th</sup> QRMC files.

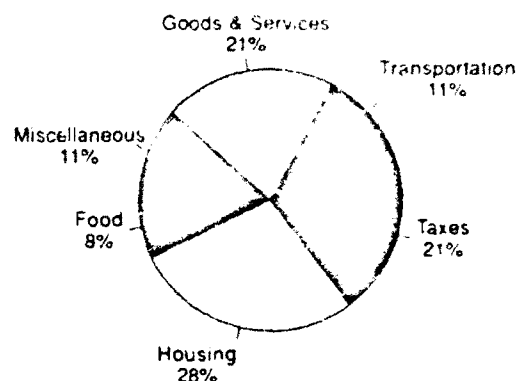
Third, location may not be the wage determinant. Wages may increase or decrease owing to variances in industry such as presence of unions, growth or decline in item demand, or the availability of an alternative labor force such as foreign workers. For these reasons, wages were not used in the analysis.

#### Select Appropriate Income Level and Family Size

Runzheimer's procedures for measuring cost-of-living differentials are well-established, time-tested, and follow the BLS measuring methods; the Runzheimer Administrators Guide, maintained in the 7<sup>th</sup> QRMC files, explains their methodology. Their researchers compare purchasing power relationships of all cost-of-living components between a location and the U.S. average, called *Standard City*. They produce indexes by income level that establish what percent of income is necessary to maintain the same standard of living in a local area as in Standard City.

Runzheimer develops Standard City for a given income level and family size based on a concurrent study of approximately 160 locations. Survey results for each of these locations

yield cost-of-living figures for these major elements: housing, goods and services, taxes, food, miscellaneous, and transportation; the relative weights of these cost-of-living elements are shown in Figure 5-5.<sup>19</sup> At each location and for each cost-of-living element, arithmetic means are determined. The next step involves averaging the 160 locally determined cost-of-living measures for each element to establish the Standard City cost of living.



**Figure 5-5.** Runzheimer International's Cost-of-Living Components

The Standard City cost of living is highly representative of the median cost of living of military members, based on a random sample of 84 military housing areas (MHA)—to be described later in this chapter. The military median cost of living (COL) is 0.2 percent less than Standard City's COL; the military mean COL, however, is 2.4 percent greater than Standard City's because of the skewed distribution of MHA COLs. The 7<sup>th</sup> QRMC concluded that Runzheimer's Standard City is an appropriate benchmark for measuring cost-of-living variations.

We chose the \$30,000 income level (approximately the average Regular Military Compensation of the career force) and an average family size of four to compute an area's cost-of-living. Because the QRMC was interested in an index of regional variations, we assumed it would make little difference whether, for instance, \$25,000 or \$45,000 were used in the analysis—the relative variation would be about the same. This assumption was supported by advice from Runzheimer and is consistent with the Office of Personnel Management (OPM) calculation for cost-of-living differentials for federal civilians in Alaska, Hawaii, and U.S. territories based on an average single income level from the Runzheimer data.<sup>20</sup>

Table 5-3 shows that there is only a small variation in the cost-of-living differential when families of different size and income level move between low-, medium-, and high-cost areas. For example, if a family of two with an annual income of \$25,000 were to move from San Antonio, TX, to Washington, DC, they would experience an 8.3 percent increase in their cost of living. If this same family had an annual income of \$45,000, the cost-of-living increase due to the move would be 8.8 percent. This same move for a family of four would result in a

<sup>19</sup>For purposes of this analysis, a \$30,000 income level was used. Housing and an amount equal to basic allowance for subsistence were excluded.

<sup>20</sup>Based on discussion with Mr. Don Paquin, Personnel Management Specialist, Office of Personnel Management (OPM), 30 May 91.

**Table 5-3. Cost-of-Living Differentials for Family Sizes of 2 and 4**

City	Income Level Family Size 2		Income Level Family Size 4	
	\$25,000	\$45,000	\$25,000	\$45,000
Los Angeles, California		1%	1%	-3.6%
San Francisco, California		17%	18%	+9.5%
San Antonio, Texas		8%	18%	+9.2%

Source: Data provided by Tom Peiffer, Director Living Cost Division, Runzheimer, June 1991.  
 Note: The cost of living in San Antonio is 2 percent higher than in Los Angeles.

#### Adjustment for the Cost of Living in the Vicinity of Military Installations

The QMDC's cost-of-living index was adjusted to reflect the cost of living necessary to purchase goods and services in the vicinity of military installations. Exchange members are eligible for commissary and exchange privileges if they live within 40 miles of a CONUS<sup>22</sup> military installation. The cost of living in the vicinity of these facilities was estimated by comparing the cost of living in the vicinity of these facilities with the cost of living in the vicinity of other facilities where these facilities were not located.

Living patterns in the vicinity of military installations were established to adjust each item's weight in the cost-of-living index. The goods as defined by the Bureau of Labor Statistics adjusting for the cost of living in the vicinity of these facilities. These adjustments amounted to a 25 percent savings for commissaries,<sup>23</sup> a 23 percent savings for exchanges,<sup>24</sup> and a 64 percent and 38 percent use rate, respectively.<sup>25</sup> The adjustment for medical savings was based on data on health care costs incurred by beneficiaries of the uniformed services

<sup>22</sup>Data provided by Tom Peiffer, Director Living Cost Division, Runzheimer, June 1991.

<sup>23</sup>DMDC's Living Patterns Survey was conducted in 1989.

<sup>24</sup>The QMDC used a 40-mile radius, which is consistent with the Civilian Health and Medical Services for the Uniformed Services (CHAMPUS) rules of eligibility.

<sup>25</sup>The Wirthlin Group, *Marketing Research Baseline: Preliminary Results of Patron Satisfaction*, report prepared for Defense Commissary Agency, 10 May 91.

<sup>26</sup>Army and Air Force Exchange Service (AAFES), 1990 Nielsen Annual CONUS Retail Price Comparison Survey, 1 Aug 90.

<sup>27</sup>Commissary and exchange use rates from the 1990 Defense Manpower Data Center (DMDC), Living Patterns Survey.

health benefits program.<sup>27</sup> This information allowed analysts to ascertain the differences in health care costs for beneficiaries who:

- Had access to medical treatment facilities (MTFs) of the uniformed services for both outpatient and inpatient care.<sup>28</sup>
- Had access to MTFs of the uniformed services for outpatient but not inpatient care.<sup>29</sup>
- Had no access to MTFs of the uniformed services.<sup>30</sup>

Using this information, ratios were developed to adjust area cost-of-living data to account for the differences that result from the use of various alternative sources of health care.

A total adjustment for the above savings was applied to Runzheimer's Standard City. This Adjusted Standard City better reflects the average national cost of living encountered by service members. Appendix V depicts the base infrastructure accounting methodology.

#### Select a Sample of the Total CONUS Service Member Population

DoD divides the United States into approximately 330 military housing areas (MHAs) for VHA payments. A random sample of 84 of these areas was identified that would accurately represent the total CONUS service member population. A list identifying the 84 areas is at Appendix W. The QRMC then contracted with Runzheimer International to survey these areas.

The wide variation in cost of living among CONUS locations (even after excluding housing and an amount equal to enlisted BAS—because these costs are covered by other military allowances, and adjusting for base infrastructure) is shown in Figure 5-6. The solid horizontal line represents the Adjusted Standard City; i.e., \$18,475 for a \$30,000 income level and a family size of four. The vertical axis is the money needed to buy the same market basket as in Adjusted Standard City. The vertical bars show the cost of living in the 84 randomly selected areas, in rank order. The QRMC also had Runzheimer survey what were

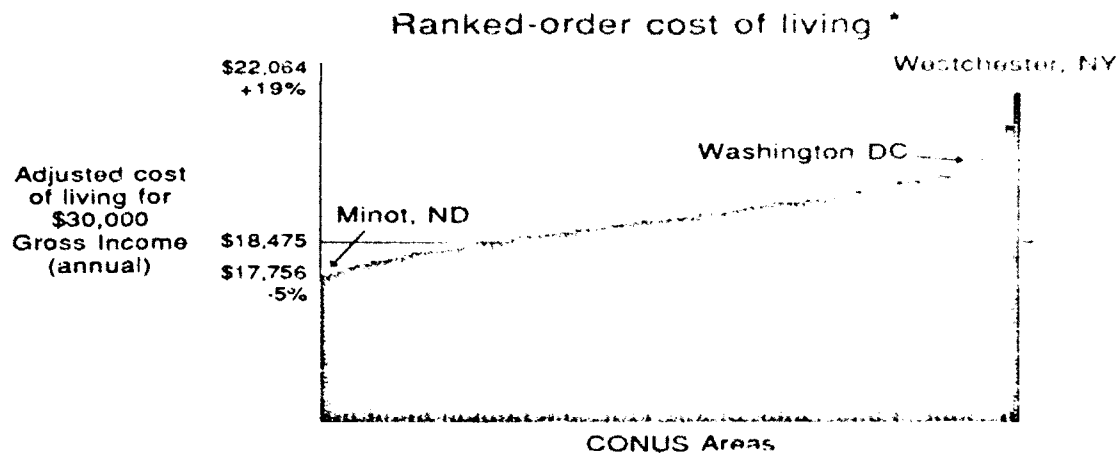
---

<sup>27</sup>William H. Albright, Benjamin R. Baker, Daniel R. Ilisevich, and Stephen Tippie. *A Reference Guide to the 1984 Military Health Services System Beneficiary Survey*. Arlington, VA: Systems Research and Applications Corporation, December 1984.

<sup>28</sup>Defined as a beneficiary who lives within an inpatient catchment area of a hospital or medical center of the uniformed services. Health care would normally be obtained from both uniformed MTFs and from civilian health care providers under CHAMPUS.

<sup>29</sup>Defined as a beneficiary who lives within an outpatient catchment area of a clinic or ambulatory care center. Outpatient care would normally be obtained from both uniformed services MTFs and from civilian health care providers under CHAMPUS. All inpatient care would normally be obtained from civilian health care providers under CHAMPUS.

<sup>30</sup>Defined as a beneficiary who lives outside of both inpatient and outpatient catchment areas of MTFs of the uniformed services. Health care would normally be obtained entirely from civilian health care providers through CHAMPUS.



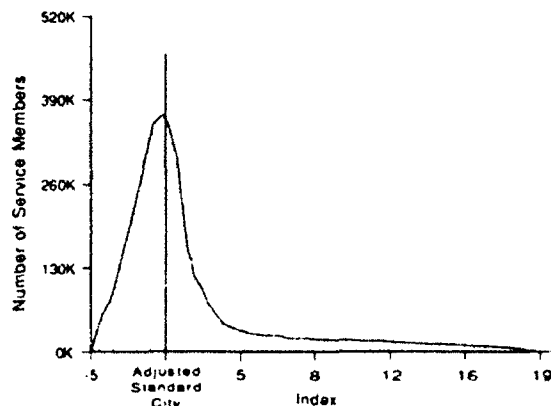
\* Random sample plus lowest and highest cost areas (Runzheimer data Jul 91), chart not to scale

**Figure 5-6. CONUS Cost-of-Living Variation**

believed to be the highest-cost area and the lowest-cost area to establish the full range of variations.<sup>31</sup> Westchester, NY, was the highest-cost area found: an E-6 would need approximately \$3,600 more annually to have the same purchasing power as in Adjusted Standard City. Minot, ND, was the area with the lowest cost of living, requiring approximately \$900 dollars less to enjoy the same purchasing power as in Adjusted Standard City.

### Results

The results confirm that there are major cost-of-living variations in the CONUS, apart from housing costs. The curve in Figure 5-7 represents the distribution of service members below and above the mean cost of living in the Adjusted Standard City. At the low end, the QRMC found no location more than 5 percent below the mean. However, the QRMC did find significant purchasing power loss at the high end of the curve with variations as high as 19 percent above Adjusted Standard City's cost of living.



**Figure 5-7. Skewed Distribution of Service Members**

<sup>31</sup>These data were provided by the services and the Per Diem, Travel and Transportation Allowances Committee (PDTATAC).

The high-cost areas were mostly coastal and urban areas that affect the Navy and Coast Guard more than the other services (66 percent of Navy and 67 percent of Coast Guard members are assigned to areas above the mean cost of living). However, the QRMC found that relatively few personnel reside in the very highest-cost areas. For example, only 1.4 percent (18,500 personnel) of uniformed service personnel in the CONUS reside in areas with a cost of living higher than 10 percent above the norm.<sup>32</sup> The key point is, for those assigned to the very high-cost areas, that it is unlikely they will catch up with lost purchasing power, even over a 20-year career. This is especially true for the Navy and Coast Guard members, many of whom spend the majority of their careers in high-cost areas. This is also true for members of the other services in career fields requiring back-to-back assignments to high-cost areas. For example, in the Air Force acquisition field, a member assigned to Los Angeles (Space Division), might well be transferred to Boston (Electronics Systems Division). Even the purchasing power loss experienced by one four-year assignment to Staten Island, NY (17 percent above the mean cost-of-living), cannot be made up by serving three assignments in the lowest cost-of-living area, Minot, ND (5 percent below the mean cost of living).

### Summary

The 7<sup>th</sup> QRMC concluded that the combined effects of the following justify some form of regional financial help:

- Assignments to high-cost areas impose significant financial hardships on service members; non-housing costs may exceed the national average by as much as 19 percent.
- Lost purchasing power cannot, on average, be made up over a member's career—there are no assignment locations more than 5 percent below the national average.
- Financial difficulties resulting from assignments to high-cost areas have negative impacts on morale, retention, and unit readiness.

The problems are particularly acute in the Navy and Coast Guard, services in which the majority of assignments are in high-cost coastal areas.

### CONUS COLA PROPOSAL

#### Threshold

The cost-of-living distribution shown in Figure 5-7 is asymmetrical (skewed to the right). The implication of this distribution is that once a member is assigned to a very high-cost area (in the right tail of the distribution), he or she stands little chance of offsetting the loss of buying power encountered through subsequent moves to low-cost areas. For example, a

---

<sup>32</sup>However, that total includes 14 percent of the Coast Guard living in the CONUS.



member assigned to an area with cost of living 8 percent higher than Adjusted Standard City has only a 4.1 percent chance of not being disadvantaged over a 20 year career.<sup>32</sup>

If the cost-of-living distribution facing members were symmetric (mean = median), a CONUS COLA would not be necessary—the service member would have an equal chance of being assigned to a high- or low-cost area over a career. Solving the following equation for  $t$  (threshold level) ensures a symmetric distribution:

$$\text{Median COL} = \text{Mean COL at threshold } t$$

$$= \sum_{i=1}^m P_i \text{col}_i + (\text{col at } t) \sum_{j=m+1}^n P_j$$

- Where  $i$  = MHAs below threshold ( $t$ ), rank-ordered from lowest to highest COL  
 $j$  = MHAs at or above thresholds  
 $m$  = number of MHAs below threshold  
 $n$  = total number of MHAs  
 $\text{col}_i$  = cost-of-living in MHA <sub>$i$</sub>   
 $P_i, P_j$  = probability of assignment to MHA <sub>$i$</sub>  or MHA <sub>$j$</sub> , respectively.

The analytical solution to the above equation is 5 percent, implying that a 5 percent threshold would create a symmetric cost-of-living distribution for the military as a whole, or the point at which the cost-of-living distribution most closely resembles a "normal" distribution.

To confirm the effect of a 5 percent threshold over a career, a model was used to simulate random moves during a 20-year period—an average of 7 moves each for 10,000 members. The results verified a mean career cost-of-living index approximately resembling a normal curve (Figure 5-8), indicating that the average DoD member would break even over a 20-year career. Some individuals, of course, will not break even, owing to greater number of assignments to high-cost areas over a career, particularly Navy and Coast Guard members subject to multiple assignments to high-cost coastal areas.

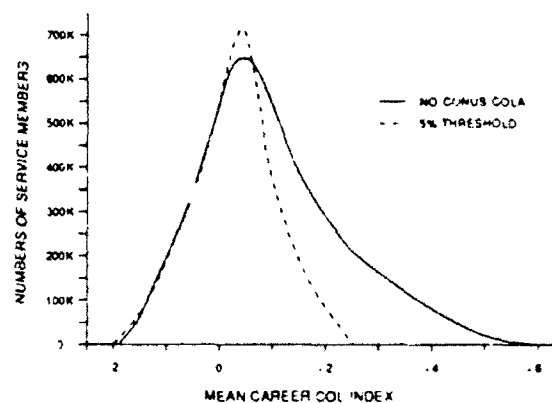


Figure 5-8. Mean Career Cost of Living Index

<sup>32</sup>Based on a simulation which models random moves among Military Housing Areas (MHAs). Seven assignment changes were assumed for a 20 year career.

## QRMC Finding

Assignments to high-cost areas impose significant financial hardship on service members, and the lost purchasing power is unlikely to ever be made up over their careers. A CONUS COLA paid above a 5 percent threshold would keep members' purchasing power variations within plus-or-minus 5 percent of the national average. This would insure service members, at least in aggregate, against financial loss over a 20-year career.

*The QRMC finds that a CONUS COLA is needed and should be paid in areas above a 5 percent threshold.*

## Thresholds of Private Sector and Government Agencies

For comparison purposes, the 7<sup>th</sup> QRMC reviewed the thresholds of several private sector and government agencies. The 5 percent threshold for uniformed service members in the CONUS is well within the range of these agencies.

- Zero. Many, if not most, private sector companies do not have a threshold. Of 30 large corporations queried by Runzheimer International, 16 paid cost-of-living supplements using 0 percent as the threshold. This means their employees received a supplemental pay equal to the absolute difference in cost of living between their originating and target cities. At the 0 percent threshold, the employee absorbs no cost associated with the new location's higher cost of living.<sup>34</sup>
- One Percent. The uniformed services overseas COLA uses a 1 percent threshold. That is, cost-of-living adjustment is provided in all overseas locations when the cost-of-living is 1 percent above the established baseline (basically the average CONUS cost of a market basket of goods and services). The 1 percent threshold was selected to ensure that service members assigned overseas can maintain essentially the same purchasing power they had in the CONUS.
- Five Percent. The Office of Personnel Management will establish a 5 percent threshold for General Schedule civilians in 1994. The Federal Employees Pay Comparability Act of 1990 (FEPCA) authorizes locality payments in any location having a pay disparity (to the extent GS pay is below non-federal pay) greater than 5 percent.
- Six Percent. Using Runzheimer data adjusted for the military (that is, excluding housing; basic allowance for subsistence, and accounting for commissary, exchange, and medical facilities), Anchorage, AK, living costs are 6 percent above those of Adjusted Standard City. U.S. civilians and uniformed service members in Anchorage

---

<sup>34</sup>James C. Hughes, Marketing Manager/Senior Consultant, Living Cost Division, Runzheimer and Company, Letter titled Inter-Office Correspondence, dated 6 May 91

already receive a cost-of-living adjustment (overseas COLA), but there are 39 MHAs in the CONUS with a higher cost-of-living than Anchorage, AK.<sup>35</sup>

- Eight Percent. The State Department and the Office of Personnel Management supplement the pay of federal civilian employees assigned in foreign areas, Alaska, Hawaii, and U.S. territories. They use Washington, DC's cost of living as their baseline, which is 8 percent above that of Standard City.

### Calculating a CONUS COLA

To cover cost-of-living premiums now paid by service members when they are assigned to high-cost areas, the QRMCM recommends establishing a supplement to a service member's basic pay. This supplement would help maintain the purchasing power of a service member's basic pay regardless of his or her CONUS geographic assignment.

- As an adjustment to basic pay, it would be taxable. Furthermore, the 1986 Federal Tax Law change, as a practical matter, precludes the establishment of any new non-taxable allowances.
- The new CONUS COLA would take into account savings attributable to commissaries, exchanges, and medical facilities.
- The proposed CONUS COLA would be computed based on a single rate, regardless of dependency status or whether the member lives on- or off-base. This method would keep the new allowance relatively simple and closely parallel the Office of Personnel Management's calculations for a cost-of-living allowance for U.S. civilians in Alaska, Hawaii, and U.S. Territories.<sup>36</sup>

The next issue was to develop a formula to calculate the CONUS COLA. Table 5-4 shows the proposed formula.

Standard City income taxes were used in each area's index calculation. The QRMCM found that excluding taxes would lead to an erroneous index, as taxes comprise a significant portion of the overall cost of living. The Standard City federal and state taxes were used in each case because, in general, the federal and state income taxes paid by military members, in aggregate, do not fluctuate significantly according to location. Next, a deduction for the availability of base infrastructure (commissary, exchange, and medical facilities) was made. Housing costs and an amount equal to the basic allowance for subsistence (BAS) were excluded because housing and food allowances, respectively, already contribute to covering service members' costs. Food costs vary by location; therefore, the correct way to account for the receipt of BAS is to subtract it from both Standard City and the target location. In the

---

<sup>35</sup>See Appendix O.

<sup>36</sup>Office of Personnel Management, "Proposed Rules," *Federal Register*, Vol. 56, No. 38, February 1991.

**Table 5-4. Formula for Calculating CONUS COLA**

Step 1:								
Area Index	=	Standard City Income Taxes	+	Area Transportation	+	Area Goods & Services	-	(Area Infrastructure + Enlisted BAS Amount)
		(Standard City Income Taxes)	+	Standard City Transportation	+	Standard City Goods & Services	-	(Standard City Infrastructure + Enlisted BAS Amount)
Step 2:								
CONUS COLA	=	(Adjusted Index -1*) x (Basic Pay)						
		1 - (0.18**)						
		* Index Minus Threshold		** 18% Marginal Income Tax Rate				

formula in Table 5-4, this was accomplished by subtracting BAS from both the numerator and the denominator.

The next step was to determine the adjusted index by subtracting the *threshold* from the area index. Threshold is more precisely defined here as the selected point (percent in this case) above the average cost of living where a CONUS COLA would begin. The service member assigned to a high-cost area would absorb the loss of purchasing power between the average cost of living and the threshold.

The adjusted index, when applied to basic pay, reflects the dollar amount necessary to lower an area's cost of living to the threshold cost of living. Because the QRMCI is comparing disposable (spendable) income to basic pay, which is taxable, an adjustment was made so that the after-tax COLA would buy the same amount of goods and services, after the threshold is applied, as in Standard City.<sup>37</sup>

#### Cost and Impact of Various Thresholds

The QRMCI had Runzheimer survey all of the high-cost areas in the CONUS to determine the total approximate program cost and number of members affected.<sup>38</sup>

Table 5-5 shows the DoD and Department of Transportation (DoT) costs and number of service members affected at each possible threshold from 0 percent to 18 percent. Appendix X identifies each area surveyed, their unadjusted cost data, and lists each area's adjusted cost-

<sup>37</sup>This is consistent with Runzheimer's *Tax Protecting Provision*. They advise their clients to increase cost-of-living adjustments to ensure after-tax dollars buy the same amount of goods and services as in Standard City (see Runzheimer Administrators Guide, Volume 3, p. 48).

<sup>38</sup>These data were provided by the Services and the Per Diem, Travel and Transportation Allowances Committee (PDTATAC).

**Table 5-5. Number of Members Receiving CONUS COLA (Thousands) and FY 1991 Cost (\$ Million) from 0-18 Percent**

Threshold	Total DoD	DoD Cost (\$M)	Total DoT	DoT Cost (\$M)	DoD/DoT Total	Total Cost(\$M)
0%	518.200	542.7	19.1	36.1	537.3	578.8
1%	432.9	434.4	18.7	31.6	451.6	465.9
2%	375.8	342.1	17.4	27.1	393.2	369.1
3%	305.2	261.4	15.9	22.9	321.1	284.4
4%	230.1	194.1	13.9	19.1	244.0	213.2
5%	199.1	140.8	12.6	15.8	211.8	156.6
6%	169.9	93.8	11.4	12.7	181.3	106.5
7%	102.3	53.2	10.6	9.9	113.0	63.1
8%	49.8	24.9	6.7	7.3	56.6	32.1
9%	18.2	14.0	4.7	5.7	22.8	19.6
10%	14.0	9.9	4.5	4.6	18.5	14.5
11%	13.1	6.8	4.4	3.5	17.4	10.3
12%	7.4	3.8	2.6	2.5	10.0	6.3
13%	7.0	2.3	2.4	1.8	9.3	4.1
14%	1.6	.86	1.6	1.2	3.2	2.0
15%	1.4	.55	1.5	.76	2.9	1.3
16%	1.4	.28	1.5	.38	2.9	.66
17%	.014	.007	.0	.0	.014	.007
18%	.014	.003	.0	.0	.014	.003
Area index rounded to the nearest whole percent						

of-living. It also identifies what facilities (commissary, exchange, and medical) were used to determine the area's adjustment for base infrastructure. The number of both DoD and DoT personnel in each area above Adjusted Standard City are also identified.

Table 5-6 shows distribution of members, by service, who would receive a CONUS COLA at various thresholds above Adjusted Standard City's cost-of-living.

**Table 5-6. Recipients of CONUS COLA at Each Threshold by Service**

Threshold	Number of Members (Thousands) / Percent Affected									
	USA	%	USAF	%	USN	%	USMC	%	USCG	%
0%	151.4	35	115.4	30	168.8	62	82.6	56	19.1	61
1%	110.7	25	95.1	25	149.5	55	77.6	53	18.7	60
5%	33.5	8	50.4	13	88.5	33	26.8	18	12.6	40
8%	10.8	2	10.6	3	17.6	6	11.8	8	6.7	21
10%	4.4	1	.5	0	7.7	3	1.4	1	4.5	14
15%	.7	0	.07	0	.5	0	.2	0	1.5	5
Area index rounded to the nearest whole percent										

The DoD cost and the number of service members affected at various thresholds are also depicted in Figure 5-9. One can see that, as the threshold rises, there is a large drop in cost and number affected.

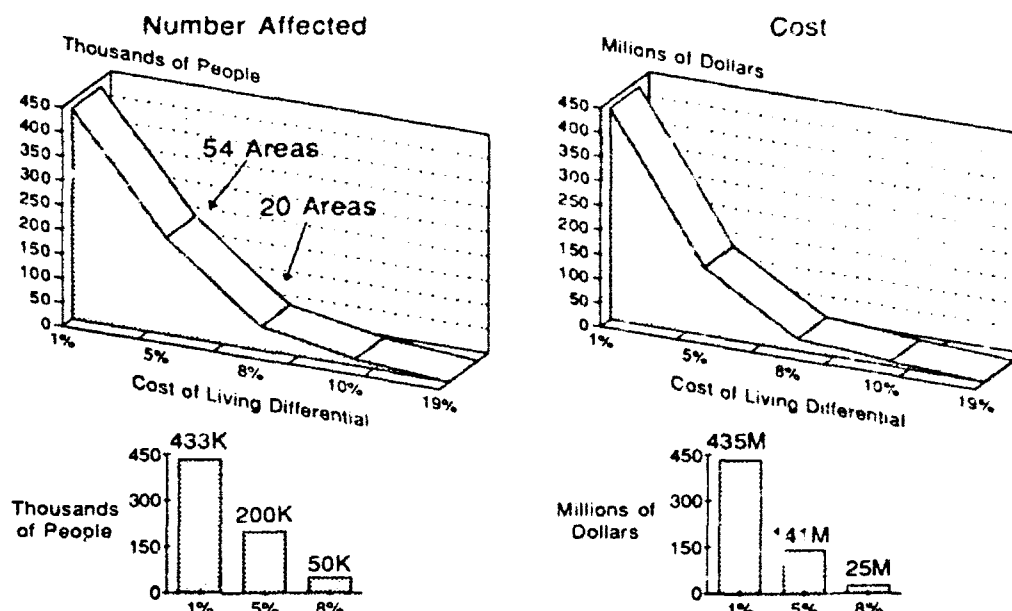


Figure 5-9. Threshold Cost and Number of Members Affected (DoD)

## RECOMMENDATIONS

Non-housing cost-of-living differences across the continental United States are great enough to warrant the establishment of a CONUS COLA. Five percent above the national average is the appropriate point where a CONUS COLA should begin for the following reasons.

At the 5 percent threshold, it is possible to help service members who are assigned to the 54 highest-cost-of-living areas at a modest overall cost to the government. As shown in Table 5-5, the costs for both DoD and DoT would be relatively low—about \$141 million for DoD and \$16 million for DoT, payable to approximately 212,000 service members. Cost for members of the Reserve components is estimated at \$14 million. About 16 percent of the CONUS DoD population and 40 percent of DoT's CONUS force would currently be eligible. A 5 percent threshold would limit a member's purchasing power loss, or absorption, to an amount equal to 5 percent of his or her basic pay (Figure 5-10).

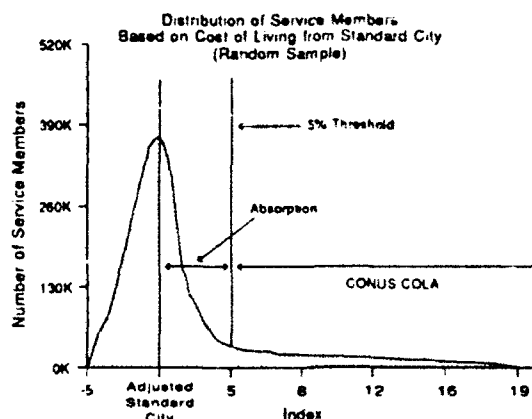


Figure 5-10. Five Percent Threshold

Table 5-7 shows the 54 areas and the index that would be applied to the member's basic pay if CONUS COLA were implemented today.

**Table 5-7. Areas Eligible for a CONUS COLA-Above a 5 Percent Threshold.**

City	Adjusted Index	City	Adjusted Index	City	Adjusted Index
Seattle, WA	1%	San Diego, CA	2%	Miami, FL	4%
Sacramento, CA	1%	*Hattiesburg, MS	2%	Los Angeles, CA	4%
Minneapolis/St Paul, MN	1%	*Fort Bragg, CA	2%	*West Palm Beach, FL	4%
*Gallup, NM	1%	*Rochester, NY	2%	*Everett, WA	4%
*Beckley, WV	1%	Perth Amboy, NJ	2%	Dallas, TX	5%
*Bangor, ME	1%	Ft Monmouth/Earle, NJ	2%	Philadelphia/Camden, PA	5%
Riverside/San Bernardino, CA	1%	*Lake Placid, NY	2%	*Providence, RI	6%
*Wallops Island, VA	1%	Fort Lauderdale, FL	2%	Hartford, CT	6%
*Morgantown, WV	1%	*Flint, MI	3%	Detroit, MI	7%
*Ann Arbor, MI	1%	*Nantucket, MA	3%	*Atlantic City, NJ	7%
*Charleston, WV	1%	Cape May, NJ	3%	San Francisco, CA	7%
*Jackson, MS	1%	Bridgeport, CA	3%	Marin/Sonoma County, CA	7%
Buffalo, NY	1%	Washington, DC	3%	Houston, TX	7%
Travis AFB, CA	1%	*Yakima, WA	3%	Freeport, NY	8%
*Nashville, TN	1%	*Aberdeen, WA	3%	Oakland, CA	9%
*Binghamton/Ithaca, NY	2%	Chicago, IL	3%	New Haven, CT	10%
Memphis, TN	2%	Fort Meade/Laurel, MD	4%	New York City, NY	12%
*Navajo County, AZ	2%	Santa Clara County, CA	4%	Westchester, NY	14%
* No base support facilities					

The resulting CONUS COLA under the 5 percent threshold would improve retention and make service members more receptive to accepting assignments to high-cost areas, both results positively affecting mission readiness.

#### **Example of CONUS COLA with a five percent Threshold**

Figure 5-11 compares the cost of living for four areas to that of Adjusted Standard City, represented by the dotted line. It shows that members assigned to Chicago for example, are experiencing an 8 percent cost-of-living differential, or about \$1,500 for an E-6. Therefore, CONUS COLA in Chicago, after discounting the 5 percent threshold, would be based on a 3 percent differential, or a CONUS COLA of \$686 as calculated in Figure 5-11. This amount would ensure an E-6's disposable income is sufficient to limit erosion of his or her purchasing power to 5 percent.

## Guard and Reserves

Reserve entitlement to CONUS COLA should be based on the same concept as the entitlement to housing allowance for reserve members. To be consistent with the QRMC housing allowance proposal means that the reservist would be eligible to receive CONUS COLA for any active duty period.

### CONUS COLA Administration

The administrative cost to implement a CONUS COLA program is estimated to be fairly low. If an outside source is used for determining cost-of-living differentials, e.g., Runzheimer International, the annual cost would be approximately \$10,000 for obtaining cost-of-living data for high-cost areas. The addition of one or two employees to the existing Per Diem, Travel and Transportation Allowance Committee would be necessary to administer the details of the program.

### Legislative Proposal

The 7<sup>th</sup> QRMC has prepared a legislative package to establish a cost-of-living allowance for members of the uniformed services assigned to high-cost areas in the continental United States. This legislative package (Appendix Y) consists of a Speaker letter, an issue paper providing detailed cost information, a draft bill adding a new section to title 37—"Cost-of-living allowance in the continental United States," and an analysis explaining each subsection of the proposed new legislation.

## SUMMARY OF FINDINGS AND RECOMMENDATIONS

The non-housing cost-of-living differences across the CONUS duty locations are great enough to warrant the establishment of a CONUS COLA. Five percent above the national

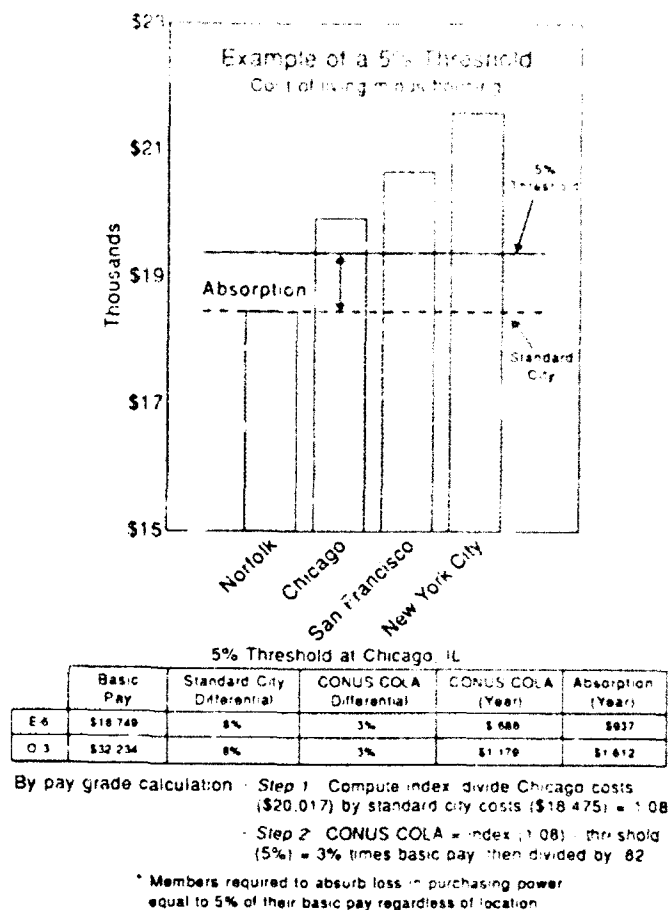


Figure 5-11. Threshold and CONUS COLA Differential



average is the appropriate point where a CONUS COLA should begin. The 7<sup>th</sup> QRMIC recommends establishing a CONUS COLA payable to all members assigned to areas where the non-housing cost-of-living is more than 5 percent above the norm.

## ALLOWANCES

### CHAPTER 6—OTHER ALLOWANCES

#### BACKGROUND

The armed forces pay out 31 *other* allowances to reimburse members for the special conditions and requirements of military service.<sup>1</sup> Subdivided into eight categories, they are:

- Travel and Transportation Allowances (17)
- Clothing Issues and Maintenance Allowances (4)
- Overseas Station Allowances (4)
- Family Separation Allowances (2)
- Personal Money Allowance/Special Position Allowance
- Reimbursement for Recruiting Expenses
- Individual Ready Reserve Muster Duty Allowance
- Partial Basic Allowance for Quarters.

This chapter provides a synopsis of their function as management. Recommendations are also made to reform several of the allowances. Table depicts the other allowances.

#### Travel and Transportation Allowances

Travel and transportation allowances reimburse members for their own and their dependents' travel, and shipment of their household goods, when travel is performed on orders for government convenience. The military has assumed an obligation to bear the expense of travel and transportation for service members and their families as part of the military's cost of doing business.

Additionally, several special allowances cover travel under unique circumstances such as travel of members in connection with physical examination or illness, transportation of remains of deceased members and deceased dependents, and travel for certain dependents of members overseas.

---

<sup>1</sup>Thirty-one *other* allowances were identified, for the purpose of this study, as unique. Chapter 7, Title 37, U.S. Code, includes 42 sections providing for other allowances.

Table 6-1. Other Allowances

CATEGORY/Line	Type	Section	Rate	Reg. Cont.	Last Act.	Costed To	Taxed	Account
<b>TRAVEL AND TRANSPORTATION ALLOWANCES</b>								
Travel & transportation (Travel)	Reimbursement	404	Varies	JFTR	N/A	Cost	Yes/No	MP/O&M
Temporary duty, quarters (TDY)	Reimbursement	404A	\$110/day (max)	JFTR	N/A	Cost	Yes/No	MP
Quarters allowance (QAL)	Cash	407	2 x BAO	JFTR	1968	BAO	Yes/No	MP
Travel in kind of duty station	Reimbursement	408	Varies	JFTR	N/A	Cost	No	O&M
Dependents' baggage/household effects	Reimbursement	406	Varies	JFTR	N/A	Cost	No	MP
Departure Allowance	Reimbursement	405A	Varies	JFTR	N/A	Cost	No	MP
Convenience leave	Reimbursement	411A	Varies	JFTR	N/A	Cost	No	O&M
Consecutive overseas tours	Reimbursement	411B	Varies	JFTR	N/A	Cost	No	MP
Certain stations in foreign countries	Reimbursement	411C	Varies	JFTR	N/A	Cost	No	MP
Personal emergency travel	Reimbursement	411D	Varies	JFTR	N/A	Cost	No	O&M
Certain emergencies while on TDY	Reimbursement	411E	Varies	JFTR	N/A	Cost	No	O&M
Transportation of surviving dependents	Reimbursement	411F	Varies	JFTR	N/A	Cost	No	O&M
Overseas extensions (Voluntary)	Reimbursement	411G	Varies	JFTR	N/A	Cost	No	MP
Family member transportation illness	Reimbursement	411H	Varies	JFTR	N/A	Cost	No	O&M
Travel for minor dependent schooling	Reimbursement	429	Varies	JFTR	N/A	Cost	No	O&M
Travel for certain dependents Mbrs OS	Reimbursement	530	Varies	JFTR	N/A	Cost	No	MP
Travel for escorts of certain dependents	Reimbursement	431	Varies	JFTR	N/A	Cost	No	MP
<b>CLOTHING ALLOWANCES</b>								
Initial uniform allowance (Officers)	Cash	415	\$200	DoD PM	1952	N/A	No	MP
Additional uniform allowance (Officers)	Cash	416	\$100	DoD PM	1952	N/A	No	MP
Enlisted clothing allowance	Cash/in kind	418	Varies	DoD PM	1992	Cost	No	MP
Civilian clothing allowance (Officers)	Cash	419	Varies	DoD PM	N/A	N/A	No	MP
<b>OVERSEAS STATION ALLOWANCES</b>								
Overseas housing allowance (OHA)	Cash	405	Varies	JFTR	N/A	Cost	No	MP
Overseas Cost of living allowance (COLA)	Cash	405	Varies	JFTR	1992	Cost	No	MP
Temporary lodging allowance (TLA)	Reimbursement	405	Varies	JFTR	N/A	Cost	Yes/No	MP
Intern housing allowance	Reimbursement	405	Varies	JFTR	N/A	Cost	Yes/No	MP
<b>FAMILY SEPARATION ALLOWANCES</b>								
Family separation allowance - type I	Cash	427(a)	Single BAO	DoD PM	1992	BAO	No	MP
Family separation allowance - type II	Cash	427(b)	\$60/month	DoD PM	1986	N/A	No	MP
<b>PERSONAL MONEY ALLOWANCES</b>								
Personal money/special position (PMA/SPA)	Cash	414	\$500-\$2000/yr	DoD PM	1947	N/A	Yes	MP
<b>ALLOWANCE FOR RECRUITING EXPENSES</b>								
Recruiting expenses allowance	Reimbursement	428	\$60/mo (max)	JFTR	N/A	Cost	No	O&M
<b>ALLOWANCE FOR MUSTER DUTY</b>								
IRR muster duty allowance	Cash	433	Varies	JFTR	1992	Per diem	No	MPR
<b>PARTIAL BASIC ALLOWANCE FOR QUARTERS</b>								
Partial BAO	Cash	1009	Varies	DoD PM	1977	N/A	No	MP

Mileage allowances for travel and transportation were first authorized in 1835 for Navy officers ordered to make permanent change of station (PCS) moves at a cost of 10 cents per mile. Transport of household goods was first authorized by the Army Appropriation Act of 1842. The Authorization Act of May 18, 1920 authorized transportation in kind for the dependents of military personnel ordered to make a PCS; and a per diem allowance was first established in 1922 at \$6 per day.

Allowances for travel and transportation are authorized by Chapter 7, Title 37, U.S. Code. Expenditures for these allowances are funded through both the Military Personnel (MP) Account and the Operation and Maintenance (O&M) Account appropriations. Generally,

travel and transportation costs arising from a PCS move are funded from MP appropriations, and Non-PCS expenditures (e.g., temporary duty) are funded from O&M appropriations.<sup>2</sup>

### **Clothing Allowances**

Since the Revolutionary War, the government has assumed an obligation to clothe, as well as feed and shelter, those who enlisted in an armed service. No comparable clothing obligation exists for officers. Although Congress has authorized the payment of officer uniform allowances from time to time, it wasn't until 1938 that a partial clothing allowances was authorized on a continuing basis. In general, the current policy reflects the government's decision that enlisted members should be provided with initial and replacement uniforms and that the cost of uniforms for officers should be borne out of their basic pay.

Enlisted Clothing Allowances. Today, clothing allowances for enlisted members consist of four types:

- Initial issue, received during basic training, for all individual uniform and clothing items in the quantities required by a member's branch of service. If an item is unavailable, then the member is given cash to purchase it.
- Replacement allowance, paid annually, defrays the cost of replacing worn-out items. This allowance has two components: the basic replacement allowance paid during the first three years and the standard replacement allowance paid thereafter. The rates differ for male and female members.
- Supplemental Clothing Allowance, paid to enlisted members assigned to specified duties in which they are required to have additional quantities or special clothing or uniform items.
- Civilian Clothing Allowance, paid to enlisted members who are required to wear civilian clothing in the performance of their duties, overseas or stateside.

Title 37 allows significant flexibility as to the quantity and kind of clothing for enlisted members. The services, along with the Office of the Secretary of Defense, review the program annually and adjust the rates based on the cost of enlisted clothing bags for each service.

Officer Uniform Allowance. Currently, all officers receive an initial allowance of \$200 upon entering active duty. An additional allowance of \$100 is paid to Reserve officers and ROTC graduates appointed in the regular component. The law governing officer clothing allowances is rigidly specified. Some officers are entitled to receive a civilian clothing allowance while assigned overseas if their official duty requires civilian clothing.

---

<sup>2</sup>For the most part, Title 37, U.S. Code, authorizes recurring expenditures for pay and allowances from MP appropriations, while Title 10, U.S. Code, authorizes the O&M appropriations.

## Overseas Station Allowances

Overseas Station Allowance is the collective title of the payments authorized by law as

per diem, considering all elements of the cost-of-living to members and their dependents, including the cost of quarters, subsistence, and other necessary incidental expenses, to such a member who is on duty outside of the United States or in Hawaii or Alaska, whether or not he is in a travel status.<sup>3</sup>

This per diem consists of four main components: (1) a housing allowance—termed *overseas housing allowance* or *overseas station housing allowance*, (2) a cost-of-living allowance, (3) a temporary lodging allowance, and (4) an interim housing allowance. These four allowances are all part of the government's cost of doing business or necessary expenses associated with overseas assignments.

Overseas Housing Allowance. The overseas housing allowance (OHA), first authorized in 1942, is designed to reimburse personnel for overseas housing costs in excess of their BAQ. The allowance varies by geographic area, rank, and dependency status. Members assigned outside the United States receive their full rent up to a ceiling set at the eightieth percentile of the actual reported rents.

Overseas Cost-of-Living Allowance. The largest overseas allowance is the overseas cost-of-living allowance (COLA), designed to reimburse members for the overseas costs of goods and services other than housing in excess of similar costs in the United States. COLA includes differentials by grade for each locality, on the theory that a member's standard of living is related to his level of income. And, because dependents' expenses are taken into account in determining the level of the allowances, COLA contains a series of within-grade differentials based on number of dependents.<sup>4</sup>

Interim Housing Allowance. The Interim Housing Allowance is designed to reimburse a member for expenses incurred by renting non-government family housing before the arrival of member's dependents at a new permanent duty station. A member in this situation is entitled to OHA for a period beginning on the date of procurement of such housing, and terminating 60 days thereafter or on the day before the dependents' arrival, whichever occurs first. Extensions beyond the 60 days may be granted.<sup>5</sup>

---

<sup>3</sup>U.S. Congress, 102d Cong, 1st sess., Title 37, U.S. Code, *Pay and Allowances of the Uniformed Services*, (Washington, 1991), 81.

<sup>4</sup>U.S. Department of Defense. Office of the Deputy Assistant Secretary of Defense (Force Management and Personnel), *Military Compensation Background Papers*, 3d ed. Chapter II.B.2, *Basic Allowance for Quarters, Variable Housing Allowance, and Overseas Housing Allowance*, (Washington, 1987), 573.

<sup>5</sup>*Ibid*, 573.

Temporary Lodging Allowance. The Temporary Lodging Allowance is designed to partially reimburse members when they and/or their dependents must use public hotels or restaurants at an overseas duty station while awaiting or after vacating permanent housing.<sup>6</sup>

#### **Family Separation Allowance**

Family Separation Allowances are paid to military members when, as a result of military duties, they are required to live away from their regular residence and/or dependents. To ease the financial burdens on the member, the government pays out two types of allowances: Family Separation Allowance I (FSA-I) and Family Separation Allowance II (FSA-II) both authorized by the Authorization Act of 1963.

FSA-I supports maintenance of a second home when a member serves at a dependent restricted location where quarters are unavailable. About 1,200 members received FSA-I in fiscal year 1990. FSA-I is paid based on the single BAQ rate, i.e., the same cash allowance to a member with dependents, separated from his family, as a single member.

FSA-II reimburses the extra costs incurred by maintaining two households when a duty requires separation for 30 days or more. FSA-II attempts to ease the financial burden of those miscellaneous non-quantifiable expenses that result from family separation (e.g., home maintenance, child care, etc.). The rate is fixed in law at \$60 a month and has not been adjusted since 1986, when the 5th QRMC recommended its increase from \$30 to \$60 per month.

#### **Personal Money/Special Position Allowance**

Personal money allowances (PMAs) partially reimburse certain high ranking officers from all services for expenses incurred by entertaining and extending hospitality as a result of their positions. Special position allowances (SPAs) partially reimburse five Navy officers occupying specific positions for official entertainment and hosting expenses. Although the Navy had previously provided PMAs, Congress recognized the added obligations of senior officers in the Joint Service Pay Act of 1922. It established a PMA for Navy rear admirals serving in the grade of Admiral or Vice Admiral, and for the Chief of Naval Operations regardless of grade. Initially, the allowance provided for a higher rate of pay for officers in certain positions of great responsibility. At that time, the highest pay grade was O-8. Over the years other positions and all Lieutenant Generals and above were added to the eligibility list; and the SPA was established in 1946. PMA/SPA evolved to emphasize reimbursement for expenses incurred in entertaining and extending hospitality, rather than payment in recognition of greater responsibility.

---

<sup>6</sup>Ibid, 573.

## Recruiter Expense Allowance

Members on recruiting duty incur, by the very nature of the activity, frequent personal expenses while working with prospective recruits. In the Authorization Act of 1971, Congress authorized reimbursement for expenses that are properly a cost of conducting government business, recognizing that individual recruiters should not have to bear them personally. These reimbursements pertain to such costs as parking fees, photocopies, official telephone calls, and snacks provided to prospective recruits. The authorization was a small part of a larger bill to amend the Military Selective Service Act of 1967 as part of the transition to the all volunteer military. A significant part of the original bill was a comprehensive enhancement of the entire recruiting effort.<sup>7</sup>

The title *Allowance for recruiting expenses* used in the heading of §428, 37 U.S. Code is something of a misnomer. Recruiters must file an itemized claim for authorized expenditures and provide receipts for expenditures over \$25 to receive reimbursement.<sup>8</sup> Moreover, the funds come from the Operation and Maintenance appropriations rather than from the Military Personnel Account. The use of the term *allowance* might have originated with the Department of Defense, which first recommended a fixed monthly allowance rather than that enacted by legislation.<sup>9</sup>

## IRR Muster Allowance

This allowance is provided to members of the Individual Ready Reserve (IRR) who are not members of the National Guard or Selected Reserve, while performing annual muster duty (one day call-up to ensure IRR availability) in lieu of other pay and allowances. The National Defense Act for Fiscal Years 1990 and 1991 authorized a flat rate allowance indexed annually to the average U.S. per diem rate, regardless of grade. The allowance was specifically designed to simplify paying all IRR members performing muster.

## Partial Basic Allowance for Quarters

Partial BAQ is provided to members without dependents who live in unaccompanied personnel housing (UPH).

In 1977, the Department of Defense Appropriations Authorization Act (Pub. L. No. 94-361, 90 Stat. 923) permitted a change in the method of distributing military pay increases. The legislation authorized the President to allocate future overall increases among the three cash elements of RMC, on other than an equal basis, when it was deemed in the best interest of

---

<sup>7</sup>For details of the entire proposal see House Report 92-82 and Senate Report 92-93, 92 Congress, 1st Session, Amending the Military Selective Service Act of 1967. Also see HASC Hearing 92-2.

<sup>8</sup>Payment for the allowance for recruiting expenses is governed by *The Joint Federal Travel Regulations*, Volume 1, p. U7C-1. The Per Diem, Travel and Transportation Allowances Committee: DoD.

<sup>9</sup>*Military Compensation Background Papers*, Chapter V.C.8, Reimbursement for Recruiting Expenses.

the Government. The purpose of providing for a reallocation was to enable progressive adjustments to be made to BAS and BAQ so that these allowances would, over time, more nearly cover the costs of the items they had originally been intended to defray.<sup>10</sup>

Partial BAQ was an outgrowth from this reallocation. When the pay raise dollars were reallocated from basic pay to BAQ, those in government quarters could not benefit from the increased BAQ—they effectively saw the nominal value of their quarters increase. This reallocation was equitable for members in military family housing (MFH), because the value of MFH was above BAQ. However, DoD perceived that this was inequitable for those in UPH, because its real value was already below BAQ.<sup>11</sup> The *value* of UPH was defined as the cost to construct, operate, and maintain the quarters. Today, under the same definition, the value of UPH is approximately the same as BAQ at the without-dependents rate.<sup>12</sup>

Congress agreed with DoD. They stated that reallocation would be inequitable without some rebate (partial BAQ) to members in UPH.<sup>13</sup> Both President Ford and President Carter exercised this option to pay partial BAQ in FY 1977 and FY 1978 respectively. In FY 1977, the first year partial BAQ was paid, the basic pay raise was 3.62 percent and the BAQ raise was 10.72 percent. In FY 1978, the only year partial BAQ rates were changed, the basic pay raise was 6.2 percent and the BAQ raise was 10.95 percent. Since FY 1978, raises in BAQ have matched raises in basic pay each year except in FY 1989. In FY 1989, Congress reset the BAQ rates—it was not the President exercising his option to reallocate funds to BAQ. Therefore, there was no authority to change partial BAQ rates in that year. The FY 1989 raises for basic pay and BAQ were 4.10 percent and 7 percent, respectively.

In FY 1992, 613,621 members collected partial BAQ. The approximate annual cost was \$58.4 million. Table 6-2 shows the original (FY 1977) and current (as last adjusted in FY 1978) partial BAQ rates by pay grade.

## OTHER ALLOWANCES PROPOSALS

### Travel and Transportation Allowances

The study group found that the travel and transportation allowances authorized in Title 37 are valid requirements; however, two allowances warrant specific discussion. They are the allowance for temporary lodging expenses and the dislocation allowance.

---

<sup>10</sup>*Military Compensation Background Papers*, 66.

<sup>11</sup>S. Rep. No 878, 94th., 2d sess. 132 (1976).

<sup>12</sup>In 1991, BAQ plus VHA/OHA was \$2.4 billion (without dependent rate). This compares closely to the \$2.3 billion cost to operate and maintain UPH (data in CRMC files).

<sup>13</sup>S. Rep. No. 1004 (Conf), 94th Cong. 2nd sess. 45 (Washington, 1976).



Temporary Lodging Expenses (TLEs). The TLE reimburses subsistence expenses actually incurred by a member who occupies temporary housing during a PCS while looking (or waiting) for permanent housing. At present, member may not be paid or reimbursed more than \$110 a day, not to exceed four days. A FY 1992/FY 1993 legislative contingency initiative was submitted to increase TLE from four to ten days to reduce the members' out-of-pocket PCS expenses. The 7<sup>th</sup> QRMC supports this proposal.

The proposed expansion of the TLE entitlement would significantly reduce members' out-of-pocket costs, alleviate one of the principal anxieties associated with a PCS, and lessen both the financial and psychological strain of finding a new home.

Dislocation Allowance (DLA). The second allowance in the travel and transportation category that warrants special consideration is the dislocation allowance. DLA entitles a member to a payment equal to two months basic allowance for quarters (BAQ) in conjunction with a PCS. Like TLE, DLA eases the financial burdens associated with relocating.

The Joint Services Housing Allowance Study (JSHAS) has recommended that BAQ be eliminated; therefore, a new annual adjustment standard needs to be determined to compute DLA for station moves. The JSHAS essentially recommended establishing DLA at 120 percent of the national median housing cost (NMHC), which is about equal to twice the current BAQ (BAQ = .60 x NMHC).

The QRMC also recommends linking the DLA rate to the new housing allowance rates by establishing DLA at 120 percent of the national median housing cost for each grade—a rate that is approximately the same as the current payment.

#### **Officers' Uniform Allowances**

The current rates for both the initial and additional allowance were established in 1952. Congress's original intent for the officers' uniform allowances was primarily to reduce the initial burden of the uniform expense, especially for reserve officers. It was intended only as a partial reimbursement. The amount was based approximately on procuring the basic

**Table 6-2. Partial BAQ rates for FY 1977 and FY 1978**

Rank	FY77	FY78	Rank	FY77	FY78
O-10	\$29.40	\$50.70	W-4	\$14.70	\$25.20
O-9	\$29.40	\$50.70	W-3	\$12.00	\$20.70
O-8	\$29.40	\$50.70	W-2	\$ 9.30	\$15.90
O-7	\$29.40	\$50.70	W-1	\$ 8.10	\$13.80
O-6	\$22.80	\$39.60	E-9	\$10.80	\$18.60
O-5	\$19.20	\$33.00	E-8	\$ 8.70	\$15.60
O-4	\$15.30	\$26.70	E-7	\$ 6.90	\$12.00
O-3	\$12.90	\$22.20	E-6	\$ 5.70	\$ 9.90
O-2	\$10.20	\$17.70	E-5	\$ 4.80	\$ 8.70
O-1	\$ 7.50	\$13.20	E-4	\$ 4.50	\$ 8.10
O-3E	\$12.90	\$22.20	E-3	\$ 4.50	\$ 7.80
O-2E	\$10.20	\$17.70	E-2	\$ 4.20	\$ 7.20
O-1E	\$ 7.50	\$13.20	E-1	\$ 3.90	\$ 6.90

uniform items, less those items that could be worn as civilian clothing (i.e., socks, undergarments, shoes).<sup>14</sup> The value of this allowance has significantly eroded. If the two allowances were indexed to the Consumer Price Index, the initial allowance would be valued at \$1,074 today and the additional allowance would be valued at \$574 (Figure 6-1).

A review is needed to compare cost of uniforms to the allowance, and to consider providing a more adequate reimbursement to officers. Moreover, it appears that the provision for the

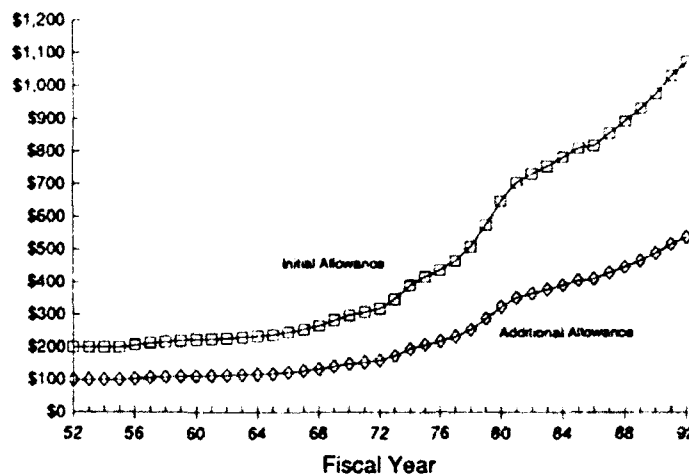


Figure 6-1. Officer uniform allowances if indexed to the CPI

for Reserve and Regular

Officers should be equalized. All officers, regardless of commissioning source or component, should receive both uniform allowances upon entering active duty to do away with the inequity of the system. It also appears that the fixed rate for officer uniform allowances, established in law, should be removed to allow the services to better manage their officers' uniform allowance. Uniform costs normally go up annually, consistent with the cost of other goods and services. If the rates were not specified in law, the Secretary of Defense or the services could prescribe the amount to be furnished based on each service's unique uniform requirements. The management practices for enlisted clothing allowance could serve as a model for future management of the officers' uniform allowance.

#### Family Separation Allowance I (FSA-I)

To help improve the management of FSA-I, one issue warrants consideration. With the recommended elimination of BAQ by the JSHAS, a new annual adjustment standard needs to be determined to compute FSA-I. The JSHAS recommends establishing FSA-I at 60 percent of the national median housing cost (NMHC). The QRMCM recommends that FSA-I be equal to the total rent a member pays, up to the without dependent maximum rental ceiling, plus the average utility and occupancy allowances.

<sup>14</sup>82d Congress, 2d Session, Hearings before the House of Representatives, Committee on Armed Services, Subcommittee on Reserve Components, *Reserve Components*, (Washington, 1951).

### **Partial Basic Allowance for Quarters**

The QRMC recommends eliminating partial BAQ for new entrants in conjunction with implementing a revised basic pay table. Those currently receiving partial BAQ would be grandfathered until they leave unaccompanied personnel housing (UPH). There are a number of reasons for recommending these reforms:

- The funds spent on partial BAQ could be more efficiently allocated, while at the same time simplifying the military compensation system.
- Partial BAQ has not increased since October 1977. Its value has substantially eroded through inflation. (The \$58.4 million program would be \$129.7 million today if it were tied to the Consumer Price Index).
- There was no increase in partial BAQ in FY 1989 when Congress reset BAQ rates.
- The majority, if not all, of members entitled to the last partial BAQ increase have moved from UPH.

### **Periodic Review**

Fixed-rate allowances (Personal Money Allowance, Officer Uniform Allowances, Temporary Lodging Expenses, and Family Separation Allowance II), need to be reviewed and adjusted where appropriate.

### **Operation and Maintenance Funded Allowances**

For clarity and consistency, the QRMC suggests moving those authorizations that require the use of appropriated O&M funds from Title 37 into Title 10, U.S. Code.

## **SUMMARY OF FINDINGS AND RECOMMENDATIONS**

The 7<sup>th</sup> QRMC concludes that the *other* allowances are appropriate reimbursements for certain expenses military members incur as a result of conditions of service. The following reforms would aid in refining the system.

- There needs to be a periodic review of the *other* allowances to simplify their management and to ensure that they are providing for what they were intended. Over the years adjustments to the allowance system have not been connected to the costs of services; the result is that cash allowances bear little relation to the costs they were intended to defray.
- The QRMC supports the proposal to increase temporary lodging expenses from four to ten days.
- Partial basic allowance for quarters (BAQ) has not been adjusted since October 1977. The money spent on partial BAQ could be more efficiently allocated; therefore, the QRMC recommends that it be eliminated in conjunction with implementing a revised

basic pay table. Those currently receiving partial BAQ would be grandfathered until they leave unaccompanied personnel housing.

- Family separation allowance-type I (FSA-I) and the dislocation allowance (DLA) are tied to BAQ rates. With the proposed revision of the current housing allowance (i.e., eliminating BAQ), the 7<sup>th</sup> QRMC recommends setting the rate for FSA-I to the total rent up to the without dependent rental ceiling and the rate for DLA to 1.5 times the local housing allowance.
- The QRMC finds no reason for the officers' uniform allowance to be different for reserve and regular officers. The Secretary of Defense or Service Secretaries should be provided the authority to annually review and set the rates.
- The 7<sup>th</sup> QRMC supports moving the allowances that are funded out of Operations and Maintenance from Title 37 into Title 10, U.S. Code.

## ALLOWANCES BIBLIOGRAPHY

### SIGNIFICANT SOURCES

Air Force Permanent Change of Station (PCS) Cost Survey Results, Headquarters, Air Force, Military Personnel Center/Directorate of Plans, Programs and Analysis, 1990.

Albright, William H. et al., *A Reference Guide to the 1984 Military Health Services System Beneficiary Survey*. Arlington, VA: System Research and Application Corporation, Dec 1984.

American Management Systems, *Final Analysis Report for the PDTATAC for Technical and Functional Support on a Study on the Adequacy of Housing Allowances*, Jul 21, 1989.

Annual Survey of Army Families: A Report on Army Spouses and Family in 1987 (Summary Report), U.S. Army Community and Family Support Center, Jul 1988, p. 8.

Army and Air Force Exchange Service (AAFES), *1990 Nielsen Annual CONUS Retail Price Comparison Survey*, 1 Aug 1990.

Barton, Margaret, *Amenities and Cost-of-Living Allowances*, System Research and Applications Corporation, 28 May 1991. (Typewritten).

Barton, M., *Issues in the Design of Housing Allowances*, SRA Corporation Report, Jun 91, p. 1-9. (Typewritten).

Camm, Frank with Praskac, Amy, *Housing Demand and Department of Defense Policy on Housing Allowances*, WD-4633-FMP, Washington D.C.: RAND Corporation, Nov 89.

Career Compensation for the Uniformed Forces, A Report and Recommendation for the Secretary of Defense. Advisory Commission on Service Pay, Charles R. Hook, Chairman. Washington, December 1948.

Chadwick, T. K., CDR CHC USN, Personal letter to Captain Pettit, Commander, Coast Guard Group Woods Hole, 26 Feb 1990.

Commandant, U.S. Coast Guard (G-PS) letter to the 7th QRMCM dated 26 Jun 1991.

Congressional Record-Senate, 12 Sep 1990.

Consumer Expenditure Survey: Integrated Survey Data, 1984-86, U.S. Department of Labor, Bureau of Labor Statistics, Aug 1989. Bulletin 2333.

Consumer Expenditure Survey, 1987: U.S. Department of Labor, Bureau of Labor Statistics, Jun 1990. Bulletin 2354.

Current Population Survey, U.S. Bureau of the Census, Mar 1990, (unpublished).

Defense Manpower Data Center, Active Master Data File, Sep 1990.

Defense Manpower Data Center, Description of Officers and Enlisted Personnel in the U.S. Armed Forces: 1985 ( A Report Based on the 1985 DoD Survey of Officer and Enlisted Personnel), Arlington, VA, Oct 1986.

Defense Manpower Data Center, Living Patterns Survey, 1989.

Defense Manpower Data Center, Living Patterns Survey, 1990.

Defense Manpower Data Center, Master Military Pay File (Active), 1989.

Department of the Air Force Justification of Budget Estimates, Military Personnel, Air Force.

Department of the Air Force. Washington: USAF, 1988, 1989, 1990, and 1991.

Department of the Army Justification of Estimates, Military Personnel, Army. Department of the Army. Washington: USA, 1988, 1989, 1990, and 1991.

Department of Defense Authorization Act, 1985.

Department of Defense, *Distribution of Personnel By State and By Selected Locations*, Directorate for Information Operations and Reports (DIOR), 30 Sep 1990. (Typewritten).

Department of Defense, *Selected Military Compensation Tables*, Jan 1989 and 1990.

Department of Defense Study Directive 2-5 on Officer's Uniform Allowances. Department of Defense, Office of the Secretary of Defense. Washington: DoD, 1964.

Department of the Navy, Bureau of Naval Personnel Memorandum for The Director, Research and Analysis, 7th QPMC, 1 Jul 1991.

Department of the Navy Justification of Estimates, Military Personnel, Marine Corps. Department of the Navy. Washington: USN, 1988, 1989, 1990, and 1991.

Department of the Navy Congressional Budget, Military Personnel, Navy. Department of the Navy. Washington: USN, 1988, 1989, 1990, and 1991.

Deputy Chief of Staff for Manpower and Reserve Affairs Memorandum to the 7th QPMC, 11 Jul 1991.

DP Current Issues Book, HQ USAF/DPPHF, May 1991, p. 1.

Emmerichs, Deputy Assistant Secretary of the Army (Military Personnel Management and Equal Opportunity Policy), Memorandum on 7th QPMC Issues, 24 Apr 1990.

Federal Register Part II, Office Of Personnel Management. Cost-of-Living Allowances and Post Differentials (Nonforeign Areas); Advance Notice of Proposed Rulemaking; Proposed Rule, 26 Feb 1991.

Fifth Quadrennial Review of Military Compensation, Volume III, Special and Incentive Pays. Department of Defense, Office of the Secretary of Defense. Washington: DoD, November 1983.

General Accounting Office, *Military Compensation: Key Concepts and Issues*, 1985.

General Accounting Office Report, *Military Housing Allowances*, Washington D.C., Jun 1986.

General Accounting Office Report, HUD Problems (2 Reports).

Gnerlich, C. H., Commanding Officer, Naval Station New York, Personal letter to Chief of Naval Operations, Military Advisory Panel Member, PDTATAC via Commander in Chief, U.S. Atlantic Fleet and Commander, Naval Surface Forces, 'U. S. Atlantic Fleet, 29 Jan 1991.

Hopewood, Charles, A.C.S.W., Personal letter to Captain Pettit, Group Commander U.S. Coast Guard Group Woods Hole, 6 Mar 1990.

Hughes, James C., Marketing Manager/Senior Consultant, Living Cost Division, Runzheimer International, Rochester, WI. Interview 10 Jul 1991.

Jehn, Christopher (ASD FM&P) letter to Honorable Les Aspin (Chairman, Committee on Armed Services, House of Representatives), 15 Feb 1991.

Jehn, Christopher, Assistance Secretary of Defense, Force Management and Personnel, Memorandum on 7th QRMCI Issues, 22 Jan 1990.

*Joint Federal Travel Regulations (including through change 44). Volume 1. Department of Defense. Washington: DoD, August 1990.*

*Joint Service Housing Allowance Study*, Nov 91, P. 3-8.

Kokoski, Mary F., "New research on interarea consumer price differences." *Monthly Labor Review* (July 1991): p. 31-34.

Military Pay and Entitlements Manual (including changes). Department of Defense. Washington: DoD, March 1987.

Office of the Comptroller of the Department of Defense, *National Defense Budget Estimates For FY92*, Mar 1991.

OSD-OMB Military Housing Study, Vol III, Oct 1995, p. 153.

Paquin, Don, Personnel Management Specialist, Office of Personnel Management, discussion on cost of living differential rate setting procedures for Alaska, Hawaii, and U.S. territories, 30 May 91.

Peiffer, Tom, Director Living Cost Division, Runzheimer International, Rochester, WI. Information on variations in family annual income levels. Interview 6 May 1991.

Personnel Policies Forum, Wage and Salary Administration, The Bureau of National Affairs, Inc, PPF Survey Number 131, p. 11, Jul 1981

Personnel Support Program Survey, U.S. Coast Guard Headquarters, Office of Personnel Training, 1991, p. 254.

Pettit, A. J., Commander, Coast Guard Group Woods Hole, Personal letter to Coast Guard Commandant, 11 Dec 1990.

Pope, Barbara Spyridon, Assistant Secretary Of the Navy (Manpower and Reserve Affairs), Memorandum on 7th QRMC Issues, 11 Apr 1990.

Report of the President's Commission on Military Compensation, April 1978, p. 136.

Runzheimer International Administrators Guide, Runzheimer International, Rochester, WI. Mar 1991. (Typewritten).

Runzheimer International Cost of Living Analysis prepared for NAVSTA New York, April 1988. (Typewritten).

Runzheimer International, Plan of Living Cost Standards Report for the 7QRMC, May 1991. (Typewritten).

Runzheimer International, Rochester, WI. 1990 Biannual Publication.

SAG Report, Simplified Housing Allowance System.

Senate Report No. 878, 94th Congress, 2d sess. 132 (1976).

Senate Report No. 1004 (Conf), 94th Congress 2nd sess. 45 (1976).

Sweeney, D. J., Officer In Charge, Coast Guard Station Brant Point, Personal letter to Commanding Officer, Coast Guard Group Woods Hole, 31 Oct 1990.

Tax Advantage, A Staff Research Paper: Prepared for the Third Quadrennial Review of Military Compensation, 1976.

The Third Quadrennial Review of Military Compensation: A Modernized System, 1976.

The Wirthlin Group, Marketing Research Baseline: Preliminary Results of Patron Satisfaction, Report prepared for Defense Commissary Agency, 10 May 91. (Typewritten).

Title 26 U.S.C. Internal Revenue Code, 1990.

Title 37, United States Code, Pay and Allowances of the Uniformed Services, As Amended Through December 31, 1990, Public Law 101-650.

U.S. Army Natick Research and Development Command, *An Evaluation of an All Commuted Ration Ashore/A La Carte System for the Navy*, Technical Report 77/011, Jan 1977.



U.S. Army Natick Research and Development Command, *Consumer and Worker Evaluation of Cash Food Systems: Loring AFB (Part I - Short Term Findings)*, Technical Report, Nov 1975

U.S. Congress, House, Subcommittee of the Committee on Armed Services, *Career Compensation for the Uniformed Services*, H. Rept 2553, 81st Congress, 1st Session, 1949.

U.S. Department of Agriculture (USDA), Department of Agriculture, Human Nutrition Information Service, *Cost of Food at Home Estimated for Food Plans at Four Cost Levels*, 1949-1991.

U.S. Department of Commerce, Bureau of the Census, *American Housing Survey*, H-150, Washington, D.C., selected years.

U.S. Department of Defense, *President's Budget for Military Personnel, Selected Items from Fiscal Year 1990*.

U.S. Department of Defense, Office of the Secretary of Defense, *Military Compensation Background Paper* (3rd ed.), Washington 1987.

U.S. Department of Defense, Office of the Secretary of Defense, *Military Compensation Background Paper* (4th ed.), (Draft), Washington 1987.

U.S. Department of Defense, *Selected Military Compensation Tables*, January 1989 and 1990.

U.S. Department of Housing and Urban Development, Office of Housing Inspection Manual Section 8 housing, Washington D.C.

U.S. Department of the Treasury, *Budget of the United States Government, Fiscal Year 1991*, 1991.

U.S. Department of Treasury, Internal Revenue Service, *Individual Tax Returns*, 1989.

U.S. Department of the Treasury, *Tax Reform for Fairness*, 1985.

U.S. House of Representatives, House Report No. 549, accompanying H.R. 9075, p. 24, 89th Congress, 1st Session.

*Variable Housing Allowance Program-Should it be changed?*, A Joint Services Study, February 1984.

White, G. P., U.S. Coast Guard, Commandant, Personal Letter to Commander, Coast Guard Group Woods Hole, 4 Jan 1991.

Yost, P. A., Admiral U.S. Coast Guard Commandant, personal letter to Mr. Jehn, Assistant Secretary of Defense, Force Management and Personnel, 6 Feb 1990.

## CONGRESSIONAL REPORTS AND HEARINGS

76th Congress, 1st Session, H.R. 1044, Allowances for uniforms and equipment for certain officers of the officer's reserve corps, July 6, 1939.

76th Congress, 3d Session, S.R. 1424, Providing allowances for uniforms and equipment for certain officers of the officer's reserve corps, April 15, 1939.

76th Congress, 3d Session, S.R. 2035, Providing allowances for uniforms and equipment for certain officers of the officer's reserve corps, April 30, 1940.

77th Congress, 1st Session, S.R. 928, Increasing the efficiency of the Army of the United States by making certain gratuitous issues, December 23, 1941.

77th Congress, 2d Session, H.R. 1706, Providing allowances for uniforms and equipment for certain officers of the Army of the United States, January 28, 1942.

77th Congress, 2d Session, Hearings before the House of Representatives, Subcommittee No. 8 of the Committee on Military Affairs, Uniform allowance for officers and warrant officers, November 16, 1942.

77th Congress, 2d Session, H.R. 2639, Uniform allowances for officers and warrant officers of the Army, November 19, 1942.

77th Congress, 2d Session, S.R. 1702, Uniform allowances for officers and warrant officers, November 19, 1942.

82d Congress, 2d Session, S.R. 1795, The Armed Forces Reserve Act of 1952, June 19, 1952.

82d Congress, 1st Session, Hearings before the House of Representatives, Committee on Armed Services, Subcommittee on Reserve Components, Reserve Components, August 21, 1951.

92d Congress, 1st Session, Hearings before the Committee on Armed Services, House of Representatives, Extension to the Draft and Bills related to the voluntary force concept and authorization of strength levels, February 23 - March 11, 1971.

92d Congress, 1st Session, H.R. 92-82, Amending the Military Service Act of 1967, March 25, 1971.

92d Congress, 1st Session, S.R. 92-93, Amending the Military Service Act of 1967, May 5, 1971.

101st Congress, 1st Session, S.R. 101-81, National Defense Authorization Act for fiscal years 1990 and 1991, July 19, 1989.

## ALLOWANCES

### APPENDIX A—SUMMARY OF U.S. ARMY NATICK RESEARCH AND DEVELOPMENT STUDIES OF RATIONS IN KIND VERSUS ALL-CASH BAS

The two studies discussed below involved paying *all* enlisted members the monthly BAS allowance and providing à la carte food pricing at the dining facilities. Because the 7th QRMC is only concerned with the cash allowance, the results of the à la carte pricing study will not be summarized.

#### CONVERSION TO BAS AND A LA CARTE AT LORING AFB (1974-1975)

A test was conducted from November 1974 through March 1975. The system was actually converted for two and a half months during this time. The rest of the period was spent gathering data. The results were as follows:

- The proportion of meals eaten by former rations in kind (RIK) members decreased from 69 percent to 52 percent. However, the former BAS members increased from 22 percent to 25 percent.
- Some deterioration in food habits was noted over the pay period by former RIK members but older, former BAS members displayed equivalent deterioration.
- Twelve percent of former RIK members did not like separate rations as they could not budget their money or they lost money because they spent too much on food.
- Because smaller amounts of food were prepared the food quality improved and food waste was reduced.
- Attitude toward the dining facility improved.

#### CONVERSION TO CASH AND A LA CARTE AT NAS ALAMEDA (1976)

A test was conducted from March 1976 through August 1976. The system was actually changed for four months during this period. The results were as follows:

- The 23 percent attendance rate of former RIK members dropped an additional 68 percent when RIK persons received cash. The reduced attendance rate at the dining facility:

- Caused a deterioration in former RIK member's nutritional intake.
- Posed a threat to the training base for Navy cooks.
- There was a net increase in cost because the monetary allowances exceeded the savings garnered by decreased usage of the dining facility.
- The study recommended that any planned implementation of an all-BAS policy ashore be discontinued.

## **ALLOWANCES**

### **APPENDIX B—DIFFERENCES BETWEEN THE SERVICES IN FOOD SERVICE POLICIES**

Table B-1 is a review of the differences in food service policies, procedures, and costs among the services.

Table B-1. Differences between the services in food service policies.

	Army	Navy	Maine Corps	Air Force	Coast Guard
BAS Entitlement (1)	At least two extenuating factors must exist	COs must ensure economical and effective messes	At least two extenuating factors must exist	At least two extenuating factors must exist	COs must ensure economical and effective messes (1a)
% Drawing BAS (2)	59.00%	52.70%	51.00%	86.60%	69.30%
Mess Separately	49.20%	41.00%	41.20%	73.17%	39.20%
Rations Not Avail	3.18%	4.00%	3.70%	5.59%	22.90%
Leave/Hospital (3)	6.62%	7.70%	6.10%	7.84%	7.20%
BAS Recoupment (4)	Officer and enlisted pay for all meals while in field, enlisted begins paying after first meal eaten. Start/stop action occurs if duty more than 14 days	Enlisted lose BAS when assigned to sea duty. Officer policy varies by ship	Officer and enlisted pay for all meals. Pay is checked if under 10 days, otherwise BAS start/stop action initiated upon deployment	Officer and enlisted pay for all meals while in field, not charged for day of arrival or departure. Start/stop action occurs if duty more than 30 days	Enlisted lose BAS when assigned to sea duty. Officer policy varies by ship
Cost to lead at sea/field (5)	\$180.5M	\$208M (6)	\$69.1M (7)	\$3.3M	Not Available
Service Policy - Officers in mess	Strongly encouraged	Not encouraged	Encouraged	Not encouraged	Not encouraged
Surcharge Collected (8)	\$3.82M	\$1.47M	\$0.4M	\$14.00M (8a)	Not Available
Dining Facilities					
Contract	908	682	97	436	424
Traditional	176	3	11	110	26
A la Carte	176	3	11	17	26
Service Run	0	0	0	93	0
Traditional	732	135	86	140	169
A la Carte	732	89	86	14	169
Other (8b)	0	46	0	126	0
		544	0	68/118	229
BOFA Rate (9)	Changes monthly, installation level \$3.97/\$4.31	Changes quarterly, service level \$4.15/\$4.39	Changes monthly, installation level \$3.96/\$4.32	Changes monthly, installation level \$3.94/\$4.37	Changes monthly, installation level \$5.26 (10)
CONUS/OCOONUS	\$4.10	\$4.10	\$4.10	\$4.10	\$5.65 (12)
Sale of Meal Rate (11)	Assigned to unit they will deploy with	Ship to shore rotation problem, Yes	Assigned at regiment level	Assigned to installation level, No	Ship to shore rotation problem, Yes
Food Service Personnel Issues	Only for cooks that are airborne	45.00% / 26.00%	40.00% / 26.00%	49.60% / 49.60%	Not Available
SRB for Food Service Personnel	CONUS/OCOONUS	CONUS/Alcal	CONUS/OCOONUS	CONUS/OCOONUS	
Absentee Rates (13)					
FY 90 BAS (14)	\$972M	\$684M	\$194M	\$983M	\$53M
FY 90 SIK (14)	\$459M	\$335M	\$128M	\$128M	\$15M
Substance Total	\$1.431M	\$1.019M	\$323M	\$1.111M	\$68M

Notes:

- 1 DoD policy entitles all E-7s and above and all married members who are accompanied to receive BAS.
- 1a. Coast Guard attempts to give all personnel BAS. Waiting list established.
2. Enlisted only; officer = 100 percent. Emergency ration rate requires approval of service secretary and is essentially zero.
3. rate is the same as the authorized to mess separately rate.
4. 22 March 1991 DoD letter standardized collection procedures for officers.
5. Cost to feed members when on field/sea duty.
6. For the Navy, this amount includes when the ship is in port and does not include officers (most ships have a private mess).
7. Desert Storm cost \$33.8 million.
8. For FY 1990, the rate was \$1.10 for breakfast and \$2.15 for lunch/dinner for a total of \$5.40 per day. In à la carte facilities, percentage of surcharge is charged.
- 8a. Estimate based on historical data.
- 8b. Afloat for the Navy and Coast Guard. Flight kitchens/missile sites for the Air Force. All service run.
9. BDFA = Basic Daily Food Allowance = amount dining facility can spend on food per day per customer.
10. Coast Guard buys majority of food at supermarkets.
11. Daily rate charged in dining facility for enlisted member (\$0.80 for breakfast and \$1.65 for lunch/dinner).
12. Coast Guard charges the daily BAS rate.
13. Percent of meal card holders who decide not to eat in the dining facility.
14. Actual amount spent in FY 1990.

## ALLOWANCES

### APPENDIX C—UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) HUMAN NUTRITION INFORMATION SERVICES

#### WHAT ARE USDA FAMILY FOOD PLANS?

- Nutritious diet plans at four cost levels—thrifty, low, moderate, and liberal.
- Amounts of different types of foods (31 food groups) that households can purchase to provide nutritious meals and snacks for one week.

#### Development

- Based on food consumption patterns and food expenditures of households from USDA's Nationwide Food Consumption Survey.
- Uses the most recent food composition data available in USDA's Nutrient Data Bank.
- Uses the current recommended Dietary Allowances and Dietary Guidelines for Americans.
- Uses a mathematical model to calculate food quantities that meet dietary standards at different cost levels.

#### Features

- Types and quantities of food included in the plans reflect eating patterns of Americans in that eating pattern reported in the survey are changed as little as possible while meeting dietary standards and cost constraints.
- Quantities of food are presented separately for men, women, and children in 11 sex and age categories.
- A food plan for any household can be determined by totaling food quantities for individual household members and adjusting for household size.
- Costs of plans are updated monthly to reflect current information on food prices from the Bureau of Labor Statistics.

#### Uses

- Serve as national standards for nutritious diets at various cost levels.
- Thrifty food plan is the basis of food stamp allotments.



- Provide for budgeting information.
- 7<sup>th</sup> QRMC utilized the USDA *Cost of Food at Home Estimated for Food Plans at Four Cost Levels* monthly data from 1949 to present. This program is based on the recognized government standards for Recommended Dietary Allowances (RDA) and assumes that food for all meals and snacks is purchased at the store and prepared at home.
- The 7<sup>th</sup> QRMC used the moderate cost food plan for 20 to 50 year old males for calculations. This plan reflects the majority of the military force.

Cost of Food at Home Estimated for Food Plans at Four Cost Levels, August 1991, U.S. Average <sup>1</sup>								
SEX-AGE GROUPS	COST FOR 1 WEEK				COST FOR 1 MONTH			
	Thrifty plan	Low- cost plan	Mod- cost plan	Liberal plan	Thrifty plan	Low- cost plan	Mod- cost plan	Liberal plan
<b>FAMILIES</b>								
<b>FAMILY OF 2<sup>2</sup>:</b>								
20-50 yrs	\$48.50	\$61.20	\$75.20	\$93.20	\$211.60	\$265.10	\$326.00	\$403.90
51+ yrs	46.30	58.70	72.20	86.20	200.60	254.50	312.80	373.60
<b>FAMILY OF 4:</b>								
Couple, 20-50 yrs and children--								
1-2 and 3-5 yrs	71.20	88.20	107.60	131.70	308.80	382.40	465.90	571.00
6-8 and 9-11 yrs	81.60	103.70	129.40	155.50	353.40	449.20	560.60	673.80
<b>INDIVIDUALS<sup>3</sup></b>								
<b>CHILD:</b>								
1-2 yrs	12.90	15.60	18.20	21.90	56.10	67.60	78.70	95.00
3-5 yrs	13.90	17.00	21.00	25.10	60.30	73.80	90.80	108.80
6-8 yrs	17.00	22.50	28.20	32.80	73.50	97.40	122.10	141.90
9-11 yrs	20.20	25.60	32.80	38.00	87.50	110.80	142.10	164.70
<b>MALE:</b>								
12-14 yrs	20.90	29.00	36.00	42.30	90.60	125.50	156.10	183.50
15-19 yrs	21.80	30.00	37.10	43.10	94.30	129.80	160.80	186.60
20-50 yrs	23.30	29.60	36.90	44.60	101.00	128.30	160.00	193.40
51+ yrs	21.20	28.10	34.50	41.30	91.90	121.90	149.70	179.10
<b>FEMALE:</b>								
12-19 yrs	21.20	25.00	30.30	36.50	91.80	108.40	131.10	158.30
20-50 yrs	21.10	26.00	31.50	40.10	91.40	112.70	136.40	173.80
51+ yrs	20.90	25.30	31.10	37.10	90.50	109.50	134.70	160.50
<sup>1</sup> Assumes that food for all meals and snacks is purchased at the store and prepared at home. Estimates for the thrifty food plan were computed from quantities of foods published in <i>Family Economics Review</i> , 1984, No. 1. Estimates for the other plans were computed from quantities of foods published in <i>Family Economics Review</i> , 1983, No. 2. The costs of the food plans are estimated by updating prices paid by households surveyed in 1977-78 in USDA's Nationwide Food Consumption Survey. USDA updates these survey prices using information from the Bureau of Labor Statistics: "CPI Detailed Report," table 4, to estimate the costs for the food plans. <sup>2</sup> Ten percent added for family size adjustment. See footnote 3. <sup>3</sup> The costs given are for individuals in 4-person families. For individuals in other size families, the following adjustments are suggested: 1- person—add 20 percent; 2 person—add 10 percent; 3-person—add 5 percent; 5- or 6-person—subtract 5 percent; 7- (or more) person—subtract 10 percent.								

## ALLOWANCES

### APPENDIX D—COST ANALYSIS OF BAS ALTERNATIVES

#### INTRODUCTION

##### Purpose

The goal of this analysis is to determine the best method for setting BAS equal to USDA food cost while holding members harmless. In 1994, the base year for all costing in this attachment, enlisted BAS is projected to be \$207.90; officer BAS, \$145.40; and USDA Moderate Plan food cost, \$185.60. Therefore, the method used must effect a reduction in enlisted BAS and an increase in officer BAS. The methods analyzed below all involve putting the differential between BAS and USDA food cost plus the associated federal tax advantage into basic pay for enlisted members and reducing basic pay by the difference for officers. Implementation should occur in conjunction with a basic pay raise so that all members would still experience an increase in basic pay.

##### Assumptions

In determining the cost of refining the allowance, certain assumptions were necessary. First, the projections for the Military Pay Index (MPI) were used to forecast BAS rates for 1992-1996 if no change were made. Office of Management and Budget (OMB) projections for the aggregate Consumer Price Index (CPI) were used to forecast USDA food costs.<sup>1</sup> These rates, as well as the resultant BAS and USDA food cost, are shown in Table D-1.

Table D-1. Subsistence Allowance and USDA Projections

Year	MPI	Enlisted BAS	Officer BAS	CPI	USDA
1991	4.2%	\$184.50	\$129.00	5.2%	\$166.43
1992	4.2%	\$192.25	\$134.42	3.7%	\$172.59
1993	3.7%	\$199.36	\$139.39	3.8%	\$179.15
1994	4.3%	\$207.93	\$145.39	3.6%	\$185.60
1995	4.1%	\$216.46	\$151.35	3.5%	\$192.09
1996	4.0%	\$225.12	\$157.40	3.4%	\$198.62

Second, the percentage of persons drawing the cash allowance was assumed to remain constant at 65 percent of the enlisted force and 100 percent of the officers. Of this 65 percent, 61 percent currently draw the *leave or authorized to mess separately* rate and the remaining, 4 percent draw the *rations not available* rate. We further assumed that patronage in dining facilities will remain proportional to the 1990 rates, and the number of meals served in the

<sup>1</sup>Both the MPI and CPI were extracted from the *National Defense Budget Estimates for FY92*, Office of the Comptroller of the Department of Defense, March 1991. MPI projections are from page 48. CPI projections from page 47 were updated by the Office of the Comptroller as of September 1991.

field will remain proportional to the 1990 level. Hence, the amount recouped due to field duty will be determined by the amount of the allowance.

### Drag-alongs

There are several other fiscal elements that must be considered when money is added to or taken from basic pay or when BAS is changed:

- Retirement accrual. DoD outlays for military personnel include a deposit to the military retirement fund. The amount is determined by multiplying the basic pay payroll by the Normal Cost Percentage (NCP) as set annually by the DoD Actuary.<sup>2</sup> The Actuary's staff examined the impact on the NCP of setting BAS to the projected cost of food for all members, with offsetting adjustments to basic pay. They estimated that the NCP would decrease by 0.1 percent. Based on these results, we used an adjusted NCP of 34.1 percent.
- Mess collections and forfeitures. In this analysis, *mess collections* refers to the amount of money paid by BAS members when they eat in a dining facility. Because the 7<sup>th</sup> QRMC proposal prescribes that these members pay the USDA food cost vice the lower DSMR, the amount collected in dining facilities will increase. *Mess forfeitures* refers to the money the government collects in field and sea conditions. The government will collect the smaller USDA rate rather than the BAS rate under the 7<sup>th</sup> QRMC proposal.
- FICA. DoD and the member currently pay 7.65 percent of basic pay to the Social Security Trust Fund. The contribution of both will increase for enlisted members and decrease for officers. Even though enlisted members will pay increased FICA, they will receive additional benefits when eligible to draw Social Security.
- Federal tax. The government will collect more federal taxes from enlisted members as money previously dispensed as a tax-free allowance is incorporated into taxable basic pay. However, the 7<sup>th</sup> QRMC proposal calls for funding this tax advantage so the member experiences no net loss. Tax revenues from officers will decrease as money is moved from basic pay into BAS. The 7<sup>th</sup> QRMC does not recommend taking this tax advantage from officers because it will partially offset their reduced retirement benefits.
- Other drag-alongs. Separation pay, accrued leave, and severance pay are all linked directly to the basic pay table. 7<sup>th</sup> QRMC analysis indicates that they amount to approximately 1.3 percent of the total cost for basic pay. (Another cost linked directly

---

<sup>2</sup>As of the beginning of FY 1992, the Actuary had approved a NCP for FY 1994 of 41.7 percent. However, the OSD Comptroller directed use of revised economic assumptions in making projections for FY 1994, which would result in a FY 1994 NCP of 34.2 percent.

to the basic pay table is reserve pay. This cost is not relevant to this discussion, but will increase somewhat as well.)

## UNCONSTRAINED METHOD

### Overview

The most straightforward, and most costly, method of making the transition to a BAS rate equal to USDA food costs would be to add the difference between the two rates and the federal tax advantage to basic pay for all enlisted members and subtract the difference for all officers. An average of \$27.20 (the cost varies slightly because the tax advantage varies by rank and years of service) would be added to the enlisted basic pay table, and about \$40.20 subtracted from the officer basic pay table. The net cost of these changes is derived in Table D-2.

### Results

A detailed accounting for the costs shown in Table D-2 follows. The actual spreadsheets used in the calculations are maintained in the 7<sup>th</sup> QRMC files.

- The increase in total basic pay, \$374 million, was calculated by multiplying the projected 1994 enlisted force times the \$27.20 increase in basic pay, and the officer force times the \$40.20 decrease in basic pay, and summing the results.
- The \$93 million total retirement accrual cost increase was obtained by multiplying the projected NCP of 34.1 percent times the basic pay increase. Similarly, the government's share of FICA was calculated by multiplying 7.65 percent times the \$374 million increase to basic pay.
- The change in BAS payment was determined by assuming that the percentage of the force by years of service (YOS) that draws BAS will remain at the 1991 level. The force receiving BAS was then multiplied by the USDA food cost vice the BAS rate and the difference determined.
- The subtotal of \$358 million represents the change to the Military Personnel Account (MPA). However, there are other costs and savings that must be considered when determining the actual cost to the government.

**Table D-2. Unconstrained Cost of Fixing BAS**

Cost Element	\$ Million		
	Total	Enlisted	Officer
Basic Pay	\$374	\$462	(\$88)
Retirement	\$93	\$133	(\$40)
Government FICA	\$28	\$35	(\$7)
BAS	(\$142)	(\$264)	\$122
Other Drag-Alongs	\$5		
Total MPA Change	\$358		
Mess Collections	\$9		
Mess Forfeiture	(\$14)		
DoD Budget Change	363		
Federal Tax Collections	\$47		
Total Cost	\$316		

- The increase in mess collections and decrease in mess forfeitures were explained briefly above. It was assumed that the number of meals eaten by members drawing BAS in garrison and in the field would remain constant whether or not the 7<sup>th</sup> QPMC proposal is adopted. This number of meals was then multiplied by the BAS rate, then the USDA rate, and the difference shown in the table above.
- Finally, the increase in federal tax collections was determined by multiplying the increase (decrease) in basic pay times the tax advantage by YOS and summing the results.
- The final result, \$316 million, does not include the increased revenue the government will take in due to members' increased FICA payments. It seemed reasonable to ignore these payments, which accrue neither to DoD nor the Treasury, rather, they go into the Social Security Trust Fund.

#### **Necessary Refinements**

This method meets the two 7<sup>th</sup> QPMC criteria: BAS is set equal to the USDA food cost, and members are held harmless in terms of current dollars. However, there are several steps that can and should be taken, not only to reduce the cost, but also to treat members fairly.

Future enlisted members have never experienced a BAS level that is higher than the USDA food cost, nor should they expect to do so. Moreover, most members in their first and second years of service are fed in kind and thus do not draw BAS. For these members, an increase in basic pay from a more realistic BAS would be a windfall.

Enlisted members will experience an increase in retirement pay due to their increase in basic pay; conversely, officers will experience a decrease. Steps should be taken to minimize these effects on deferred income. Further analysis focused on steps to resolve these problems.

#### **PHASE-IN**

##### **Overview**

This discussion applies to the enlisted force only. The officer force was treated the same as in the unconstrained case. The purpose of this analysis was to minimize the windfall gain received by persons not yet in the service and the majority of those members whose meals are provided by their service.

The 7<sup>th</sup> QPMC determined that an equitable way to phase the differential BAS into basic pay would be to make no change for members with less than two years of service, add one-third of the differential for those with two years of service, two-thirds for those with three years of service, and the full differential for members with four or more years of service.

## Results

The costs for this method are shown in Table D-3. The actual spreadsheets used in the calculations are maintained in 7<sup>th</sup> QRMC files.

In summary, the phase-in method dramatically reduces the increased cost of enlisted basic pay that was calculated for the unconstrained case. These savings stem from trimming the \$27.20 per member that had been added to the first three years of service for the enlisted force. These savings then trickle through the costs for retirement, FICA, increased tax receipts the government will experience, and other drag-alongs. The amount of BAS paid, as well as mess collections and mess forfeitures, stay the same as in the unconstrained case because they are based on the difference between the projected USDA and BAS rates.

Table D-3. Phase-In Cost of Fixing BAS

Cost Element	\$ Million		
	Total	Enlisted	Officer
Basic Pay	\$221	\$309	(\$88)
Retirement	\$41	\$81	(\$40)
Government FICA	\$17	\$24	(\$7)
BAS	(\$142)	(\$264)	\$122
Other Drag-Alongs	\$3		
Total MPA Change	\$140		
Mess Collections	\$9		
Mess Forfeiture	(\$14)		
DoD Budget Change	\$144		
Federal Tax Collections	\$21		
Total Cost	\$123		

## BALANCING CURRENT AND DEFERRED INCOME

### Overview

The purpose of this analysis was to limit the amount of windfall retirement gain experienced by the enlisted force and the retirement loss experienced by the officer force.

As described in the Compensation Structure Major Topic Summary, a member's decision to remain in the service is based in part on his expectations of life stream earnings. For the enlisted force, when the BAS differential (approximately \$27.20) is moved from BAS to basic pay, the amount of deferred compensation increases. Therefore, members should be willing to forego some

current income in anticipation of this future gain. Conversely, for officers, when the basic pay differential (\$40.20) is moved from basic pay to BAS, there is a decline in deferred income, which can be offset by a rise in current income. The 7<sup>th</sup> QRMC used the ACOL model to measure the effect of this swapping of deferred and current income. The amount moved into, or taken from basic pay was adjusted until the retention rates derived in ACOL remained unchanged.

### Results

Figure D-1 shows the change in current and deferred income for enlisted members. During the early phase-in years (less than 2 YOS) for new members, none of the \$27.20 BAS differential will be put into basic pay; however, few members during these years will draw

BAS. Members not drawing BAS will experience no loss in their current income. As explained above, by the 4th YOS, all members will receive the entire BAS differential in their basic pay. The chart shows a slight decrease in current income for YOS 4-10 owing to increased FICA tax. For YOS 11-20, the amount put into basic pay will drop slightly to offset the increased deferred compensation shown in YOS 20-30. The corresponding change in continuation rates (derived from ACOL) are shown in Figure D-2. These changes are within the error margin of the model and essentially represent no change in the force structure.

Figure D-3 shows the change in current and deferred income for officers. Officers will experience the entire \$40.20 reduction in basic pay that is shifted to BAS through the 16th YOS. They will enjoy a slight increase in current income owing to their reduced FICA tax when money is shifted from taxable basic pay to a tax-free allowance. From the 18th YOS on, the amount taken away from basic pay will drop slightly each year, such that by the 30th YOS only \$14.07 is taken from basic pay.

This procedure of not decreasing basic pay by the same amount as the increase in BAS causes current income to increase from YOS 18 onward and also ameliorates the loss in retirement income. The change in continuation rates for officers is shown in Figure D-4. As in the case of the enlisted force, these changes essentially represent no change to the current force structure.

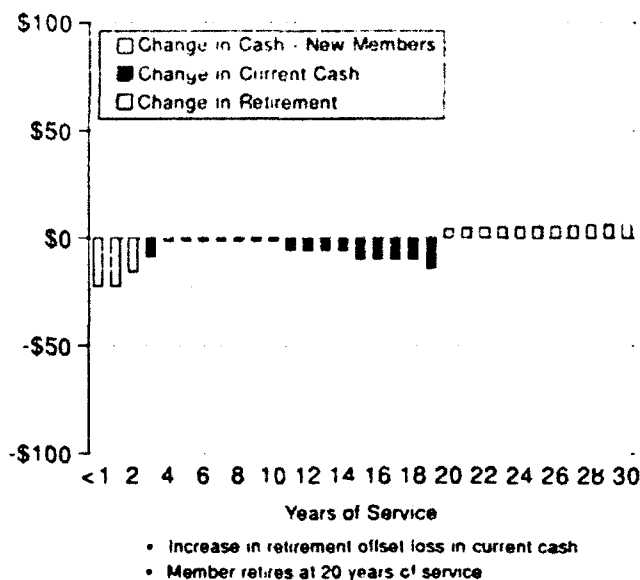


Figure D-1. Change in Current and Future Cash - Enlisted

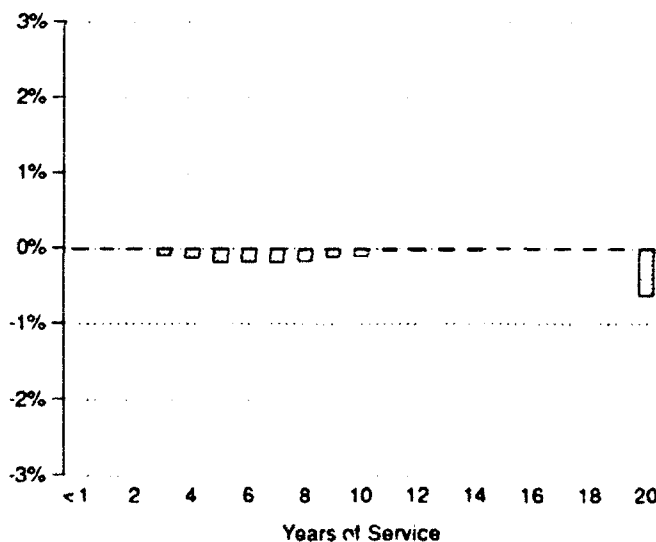


Figure D-2. Change in Continuation Rates - Enlisted



The cost for this alternative is shown in Table D-4. The actual spreadsheets used in the calculations are maintained in the 7<sup>th</sup> QRMC files.

Once again, the key cost savings will be the overall drop in basic pay increases that also causes a reduction in the retirement accrual and other drag-alongs. In this case, too, the increase in the officer costs will be offset by the cost reductions in the enlisted force because the enlisted force is such a large percent of the total force. As in the phase-in method, no changes will take place in the amounts of BAS paid, mess collections, or mess forfeiture.

#### Summary

The cost of fixing BAS as an allowance can be reduced to \$72 million while holding current members harmless. The key to the cost savings of \$244 million over the unconstrained method (putting the entire differential and federal tax advantage into basic pay for enlisted and taking the entire differential from the basic pay for officers) is preventing windfall gains to members. Persons not currently in the service are not

entitled to an increase in basic pay to make up for a reduction in BAS that they will never endure. At the other end of the force structure, retirement-eligible members should not overly benefit by an increase in their basic pay, upon which the retirement benefit is based. The ACOL was used to reduce their current income marginally to offset this gain. A similar method was used to reduce the officer loss in deferred income. In conclusion, this method of balancing current and deferred income not only reduces the cost to the government, but also treats members equitably.

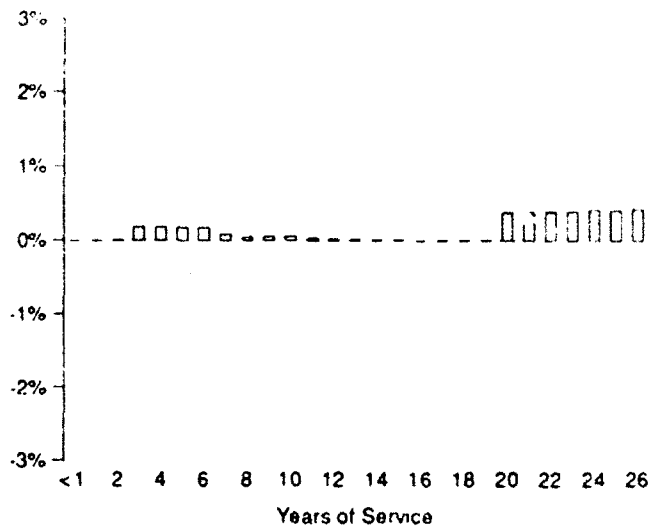


Figure D-3. Change in Continuation Rates - Officers

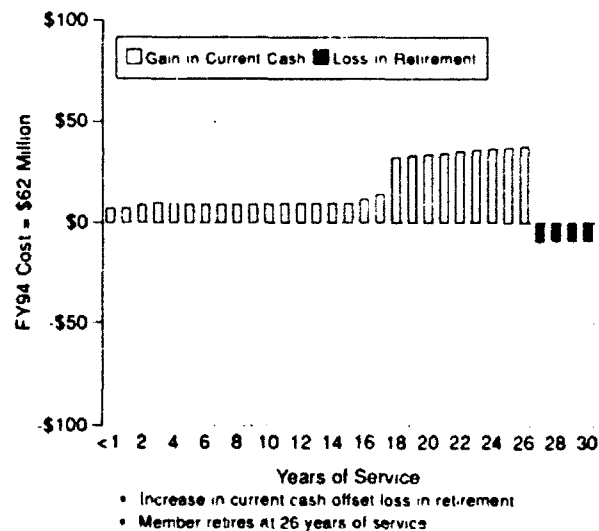


Figure D-4. Change in Current and Future Cash - Officer

**Table D-4. Current Deferred and Phase-In Cost of Fixing BAS**

Cost Element	\$ Million		
	Total	Enlisted	Officer
Basic Pay	\$182	\$257	(\$75)
Retirement	\$28	\$63	(\$35)
Government FICA	\$14	\$20	(\$6)
BAS	(\$142)	(\$264)	\$122
Other Drag-Alongs	\$2		
Total MPA Change	\$85		
Mess Collections	\$9		
Mess Forfeiture	(\$14)		
DoD Budget Change	\$89		
Federal Tax Collections	\$17		
Total Cost	\$72		

## ALLOWANCES

### APPENDIX E—FOOD AND FOOD SERVICE CHARGES—APPLICABILITY OF DISCOUNTED AND FULL RATES

Food and food service charges by personnel category and applicable rate that is paid. This information is from DoD Directive 1338.10—Dining Facility and Mess Operations, dated September 1990.

PERSONNEL CATEGORY	RATE TO PAY
<b>Officers:</b>	
In leadership positions. ....	No charge
Evacuated as a patient by military aircraft. ....	No charge
Performing field duty against an actual or potential enemy and subsisted in a government mess or an organization drawing field rations. ....	Basic allowance for subsistence <sup>1</sup> (BAS)
On official duty in hostile fire areas. ....	BAS <sup>1</sup>
Officer candidates, cadets, midshipmen and ROTC/NROTC/AFROTC students not receiving per diem. ....	Discounted rate <sup>1</sup>
Patient in hospital not receiving per diem. ....	Discounted rate
Consuming a meal to determine the quality and quantity of food served when designated in writing in accordance with Chapter 6, Section C, paragraph 6.b.(6)(e) of DoD 1338.10-M ....	Discounted rate
On alert status requiring immediate, availability thereby precluding departure from unit areas when designated in writing in accordance with Chapter 6, Section C, paragraph 6.b.(6)(g) of DoD 1338.10-M ....	Discounted rate
Receiving a holiday meal on Thanksgiving, Christmas or Military Service birthdays. ....	Discounted rate
While aboard ships. ....	Discounted rate
Participating in mass troop movements. ....	Discounted rate
Performing food service assignments. ....	Discounted rate
When engaged in flight operations as a crew member or as a passenger. ....	Discounted rate
Receiving the meal portion of per diem. ....	Full rate
All others. ....	Full rate

<sup>1</sup>When required to eat in appropriate fund dining facilities because of extended operational considerations, the basic allowance for subsistence or discounted rate, as applicable, is generally withheld from pay or paid by a monthly collection.

PERSONNEL CATEGORY	RATE TO PAY
<b>Enlisted:</b>	
Receiving subsistence in kind and not receiving subsistence allowance or per diem. . . . .	No charge
Evacuated as a patient by military aircraft. . . . .	No charge
Receiving an allowance for subsistence. . . . .	Discounted rate
When engaged in flight operations as a crew member or as a passenger. . . . .	Discounted rate
In travel status, receiving meal per diem. . . . .	Full rate
All others. . . . .	Discounted rate
<b>Military Dependents:</b>	
Spouses and dependent children of enlisted members in pay grades E-1 through E-4. . . . .	Discounted rate
Spouses and dependent children receiving a holiday meal on Thanksgiving, Christmas, or Military Service birthday. . . . .	Discounted rate
All others. . . . .	Full rate
<b>All Others:</b>	
Personnel evacuated as patients by military aircraft. . . . .	No charge
Authorized member of organized nonprofit youth groups (e.g., boy scouts, girl scouts). . . . .	Discounted rate
Patients in hospitals. . . . .	Discounted rate
DoD Dependent School students if alternative student meal facilities are not available. . . . .	Discounted rate
Volunteer Red Cross workers. . . . .	Discounted rate
Personnel responding to acts of providence and civil disturbances when no other comparable food service facilities are available. . . . .	Discounted rate
When engaged in flight operations as a crew member or as a passenger. . . . .	Discounted rate
International Military Educational Training (IMET) and Foreign Military Sales (FMS) students when:	
• Food service charge is recovered through tuition. . . . .	Discounted rate
• Food service charge is not recovered through tuition. . . . .	Full rate
Authorized United Service Organizations, Inc. (USO) personnel. . . . .	Full rate
Civilians receiving meal portion of per diem. . . . .	Full rate
All others. . . . .	Full rate

## **ALLOWANCES**

### **APPENDIX F—JOINT SERVICES HOUSING ALLOWANCE STUDY (EXECUTIVE SUMMARY)**

Attached is the text of the Executive Summary of the Joint Services Housing Allowance Study, November 1991.

## EXECUTIVE SUMMARY

### REQUIREMENT FOR THE STUDY

This study of military housing allowances originated from congressional concerns that the current system of allowances might be inadequate, inequitable and not operating as originally designed. In particular, the Congress noted that BAQ and VHA had collectively shrunk in value to the point where Service members were absorbing nearly 22 percent of their housing costs from income other than housing allowances, rather than the 15 percent originally intended.<sup>1</sup>

In the Report of the Committee on Armed Services, United States Senate, on the National Defense Authorization Act for Fiscal Year 1989, the Congress directed the Secretary of Defense, "to review the housing allowance system for military personnel and to submit a comprehensive legislative proposal that provides for an equitable housing allowance system for all personnel." In the Report, the Committee acknowledged that the task would be complex and therefore require considerable effort (Appendix B). Consequently, the Department of Defense was directed to provide an interim report, detailing a plan for accomplishing the directive, to the Armed Services Committees of the Senate and House of Representatives by July 1, 1988. This report was submitted by the Assistant Secretary of Defense for Force Management and Personnel on July 6, 1988.

In the Fiscal Year 1990 Senate Appropriations Committee language concerning the funding of the Variable Housing Allowance (VHA) entitlement, the Congress again requested a report

---

<sup>1</sup> This problem is not occurring in the Overseas Housing Allowance (OHA), which fully reimburses members serving overseas for housing costs up to a ceiling equal to the rental expenses of the 80th percentile of members of the same grade, dependency status, and area.

clarifying, "the status of housing allowances as compensation versus reimbursements and establishing criteria for what constitutes adequate housing." The Congress suggested that "proposals from the Department for changes in existing housing compensation programs should move towards achieving adequate, rather than minimally acceptable, housing for military members." They also requested the Department pursue initiatives to improve or expand the existing stock of military owned or leased housing facilities as a long term, cost-effective alternative to reduce the annual costs for housing allowances.

During the course of this study, it became apparent that several additional issues, apart from those of equity and adequacy of housing allowances, required examination. As a group, these issues relate to the fiscal management of the system and should be resolved independently of any other recommendations.

---

## ISSUES

---

### FISCAL MANAGEMENT ADEQUACY EQUITY

---

## SCOPE OF THE STUDY

The purpose of the study, derived from the Congressional report language associated with the Defense Appropriations Acts of 1988 and 1989<sup>2</sup>, was to provide an unrestrained assessment of the BAQ and VHA programs with the objective of developing an integrated housing allowance system of equitable and adequate allowances for all Service members. To accomplish this purpose the study group examined several fiscal issues which currently impede the effective management of the system, compared rates of housing allowances to external bench marks of costs for adequate housing, and examined inequities between military members caused by existing law, DoD policies, and system administration.

---

<sup>2</sup> The Congressional language requiring this study is at Appendix B

The report is organized into the following chapters:

Chapter 2 provides a history of military housing allowances including the legislative milestones leading to today's system.

Chapter 3 contrasts current standards and policies for on-post and off-post housing.

Chapter 4 describes the current situation regarding housing allowances including the composition of in-kind and cash allowance housing populations, the geographic distribution of housing allowance recipients, and the type of housing they select.

Chapter 5 discusses issues which hamper efficient and/or effective fiscal management of the housing allowance system.

Chapter 6 examines the adequacy of housing allowances in the United States including Alaska and Hawaii.

Chapter 7 addresses housing allowance inequities from the perspectives of both the individual members and the Department.

Finally, the appendices contain extracts of housing allowance legislation, displays of the VHA population distribution, statistical comparisons of high to low cost housing areas, comparison of military to civilian housing expenditures, and cost estimates of the recommendations.

## OVERVIEW

The Government's responsibility to provide housing for all Service members can be traced to the Third Amendment to the Constitution of the United States which prohibits quartering of soldiers in a house without the consent of the owner; however, over the years, the mission and structure of the military force to which that responsibility applies has changed dramatically. Not only is the present active duty military force significantly larger than envisioned for peacetime in 1789, but also, the advent of the All Volunteer Force in 1972 brought significant changes in its composition. Further, over the last decade, the number of junior enlisted families, women, and dual Service couples has increased significantly. If we accept the idea that adequate housing is a "quality of life" necessity, not a privilege gained by tenure, we may need to develop more housing allowance policies which are more equitable to nature of voluntary service and a changing force mix.

When the Basic Allowance for Quarters (BAQ) was originally introduced, the normal housing circumstance for Service members was expected to be government quarters. Housing allowances were envisioned as necessary only for those few Service members who could not be housed on base. Today, however, more than 70 percent of Service members with dependents and over 57 percent of all Service members receive housing allowances in lieu of in-kind housing (i.e. quarters, billets, or leased family housing). With this situation, the question arises whether or not this de facto shift from the original concept which assumes government housing for the majority of active duty military



members to a reality that depends on the private sector housing market is sufficiently important to warrant a major change in the principles underlying the housing allowance system.

Housing allowance policies should neither influence members to choose housing which is at a better style/level than other Americans of similar income, age, family status, etc., nor should they discourage members from achieving similar quality housing as their civilian counterparts. These two conditions reflect the delicate balance between individual member housing desires and the Department's fiscal responsibilities. The current system of housing allowances recognizes and accommodates the fact that housing costs may be higher in certain locations, but tempers variable cash allowances through policies that encourage moderation in member spending. Despite these good intentions, a confluence of complex computation methodologies, persistent funding shortfalls, and indications of insufficient allowances raise the question of whether or not significant system changes are needed for the program to work as intended.

As the largest component of a member's monthly budget, housing expenses, and consequently housing allowances, are likely to increase in importance. There are over twice as many recipients of housing allowances as there are members residing in Government housing. Even after significant reductions in the size of the force, housing allowance recipients will remain in the majority. Further, in the current environment of anticipated force structure reductions, retention of quality personnel will be crucial to readiness. Given the importance of housing to a member's quality of life and the size of his budget devoted to it, inequitable policies and inadequate allowances could lead to the loss of valuable manpower. For these reasons, a long-term solution to current housing allowance problems is necessary.

## FINDINGS

Housing allowance rates are established annually based on the reported housing expenses of military members without regard to the adequacy of the dwellings procured. Housing expense information is collected from members through a biennial survey and used to compute both national and local median housing costs for each pay grade and dependency status in over 350 localities within the United States. If adequately funded, entitled allowance rates will cover all but 15 percent of the national median housing cost for the member's pay grade and dependency status. However, if a large group of members exhibit adverse housing expenditure patterns (e.g., spend less than necessary for adequate housing), their behavior will be reflected in the housing allowance rates computed by the Department.

A primary shortcoming in the current system of housing allowances is the procedure for annually adjusting the size of the housing allowance accounts. The BAQ program is adjusted annually at the same rate of increase as the military pay raise which has no consistent relationship to the cost of housing, while the VHA program is increased on the basis of member-reported housing costs. These adjustments to housing allowances at separate rates, combined with fiscal restraints over the last decade, has resulted in program shortfalls paid for by members by increases in the out-of-pocket costs. For example, in 1987, Congress froze housing allowance rates and precluded the Department from making rate adjustments based on the latest survey, thereby preventing allowance increases to be applied where they were needed most. Even with the removal of all fiscal legislative constraints,

unless the method of adjustment is changed to permit the distribution of the funds from the combined programs (BAQ and VHA) under one rate setting system, the allowance structure will continue to deteriorate as the two annual adjustment methods diverge.

The study team found no external data source which could completely replace the housing expense data collected biennially from Service members for setting VHA rates. The best data base of rental costs is produced from the American Housing Survey (AHS) conducted by the Census Bureau; however, its utility is limited to income levels under \$50K (pay grade O-4). Above this income level, the survey data contains too few renters to be of use. However, at income levels below \$50K, a analysis comparing these renter data to member housing expenditures resulted in the observation that there is no statistically significant difference in the housing expenditures of Service members and civilians in similar circumstances (e.g., age, education, renters, recent movers). Nonetheless, the absence of representative data in the higher income brackets precludes the use of these data for ratesetting in all pay grades and areas where military members are assigned.

As an alternative, the study group examined the use of Fair Market Rents (FMRs) as an external measure of rental housing costs. FMRs are derived from the American Housing Survey data and are produced and published annually by the Department of Housing and Urban Development (HUD).<sup>3</sup> They represent the median cost of rental units<sup>4</sup> in a local area, classified by number of bedrooms, and are used by HUD as reimbursement ceilings under their Section 8 Certificate and Voucher Programs.<sup>5</sup> The data base represented by the FMR includes rental units from all price ranges except new construction and luxury units (at the upper end) and subsidized housing and substandard housing (at the lower end).

Figure 1-1 compares housing allowances and 2-bedroom FMRs for E-4s in all Military Housing Areas (MHAs). FMRs are rank ordered from lowest to highest, nationwide, and displayed with their corresponding housing allowances (BAQ plus VHA) for E-4s with dependents.<sup>6</sup> This comparison clearly shows that current housing allowances for this pay grade, are inadequate to meet the FMR standard for all locations except Alaska.

The difference between housing allowances and FMRs in the highest cost areas is increasing. Between 1985 and 1990, FMRs (cost of rental housing) in the highest cost quartile (25% of MHAs) increased twice as much as median military housing costs (expenses reported by military members). In the lowest cost quartile, on the other hand, the increases in these two measures were approximately the same.

---

<sup>3</sup> A detailed description of FMRs is contained in Appendix K.

<sup>4</sup> In 1985, HUD replaced the median value of housing costs for rental units (one to four bedrooms) with the 45th percentile value for budgetary reasons.

<sup>5</sup> Under these programs HUD reimburses participants for rental expenses in excess of 30% of their income up to the FMR for the size dwelling rented.

<sup>6</sup> FMRs are published by number of bedrooms: zero (efficiency apartment) to four.

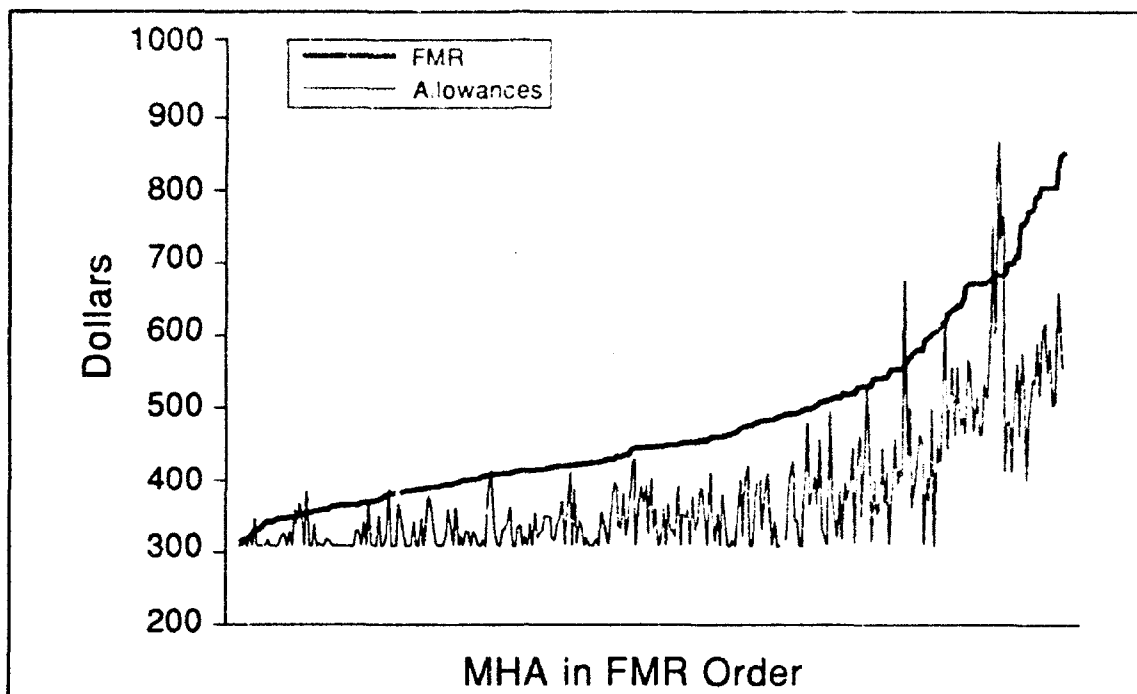


Figure 1-1. FMR vs. HOUSING ALLOWANCES (E-4 W/DEPS)

Members residing off base in private sector housing are expected to "absorb" a specified percentage of their housing costs from other components of their military pay while members in Government quarters do not. The Congress, in developing the current VHA program, envisioned that absorption would be 15 percent of the National Median Housing Cost (NMHC) reported by military members. BAQ and VHA were intended to offset 65 and 20 percent of NMHC, respectively. However, the current rate of absorption is over 20 percent of the National Median Housing Cost for the member's pay grade.

Unless action is taken to link housing allowances to a price-based, rental housing cost index, the amount of housing costs paid out-of-pocket by military members (i.e., absorption) may continue to increase. As previously mentioned, BAQ rises with the annual pay raise, while VHA changes according to national housing cost growth. Given a BAQ budget which is five times the size of the VHA budget and the fact that annual pay raises have consistently lagged housing cost increases, total housing allowance dollars have been, and will continue to be, insufficient to keep up with rental housing costs.

In addition to this basic inequity, entitlements and policies favoring some sub-groups remain a continuing source of discontent:

To many members, the requirement to reside in a dormitory environment, with its attendant lack of privacy, cramped living space, lack of kitchen facilities and accommodations for guests, is a

serious career disincentive. Many, in fact choose to secure private housing at their own expense rather than reside in this environment. This lack of choice in where and with whom they live is seen as highly inequitable particularly to those middle-grade members who may be supervisors over 30 years old. They understandably believe that supervisors responsible for significant human and material resource decisions should have the choice in selecting their living environment and should not be subject to lifestyle controls imposed on their youngest subordinates. Nowhere is this inequitable situation better exemplified than at sea.

The law currently denies housing allowances to members without dependents, E6 and below, who are assigned to sea duty - an entitlement originally granted to boost career force retention in the higher pay grades by permitting these members to "elect not to occupy Government quarters [aboard ship]"<sup>7</sup>. This prohibition includes Service members married to other members without dependents when either is assigned to sea duty.

Inequities also exist in the area of BAQ entitlements for child support:

- Under current law, single members paying court-ordered child support are entitled BAQ at the "with-dependents" rate even if they are residing in government quarters (i.e., Bachelor Enlisted Quarters).
- Current policies require member parents of illegitimate children to show more documentation to prove their support requirement than do member parents of legitimate children. The non-custodial member parent of the legitimate child need only provide documentary evidence of monetary support equal to the difference between the BAQ "with-dependents" and "without-dependents" rates to receive full BAQ ("with-dependents" rate). The non-custodial member parent of an illegitimate child must show evidence that the entire amount of full BAQ ("with-dependents" rate) is provided as child support in order to draw the full BAQ. As a result, Government support for illegitimate children also exceeds support required for legitimate children.<sup>8</sup>
- Single members in grades L-7 and above who are assigned to sea duty may elect to live ashore and receive BAQ and VHA at the "without dependents" rate. However, if the same member is receiving BAQ at the "with dependents" rate based solely upon the payment of child support, VHA is denied.
- In child support cases, when the appropriate support is provided, the payment of BAQ at the "with dependent" rate is normally made to the non-custodial parent. For members divorced from other members, this policy results in the custodial parent being denied the BAQ entitlement at the "with dependents" rate in his/her own right.

---

<sup>7</sup> Section 403(b)(j)(1) of title 37 United States Code.

<sup>8</sup> The intent of the provision requiring greater proof of support for parent/members of illegitimate children included provisions for paying the total allowance to the custodial parent to assure the non-custodial father didn't pocket a portion of the allowance.

Legislative authority governing the VHA program requires rate changes to be based on survey data and to coincide with changes in basic pay. No flexibility is extended to the Secretary of Defense to permit timely rate adjustments under unusual circumstances in which local housing markets exhibit long term negative attributes which inhibit normal market forces (e.g., rent controls) or may be undergoing sudden and dramatic changes (e.g., natural disasters, like Hurricane Hugo, which may result in a severe shortage of housing).

A Service member's Variable Housing Allowance entitlement changes annually with the change in the prevailing rate. As a result, members in declining or slower rising housing markets have experienced allowance declines even though their personal expenses/obligations (i.e., mortgages or long-term leases) remained steady or rose. An amendment to the 1989 Defense Authorization Act (Bateman Amendment), which took effect on Oct 1, 1990, prevents a net pay loss but does not protect the individual member against significant allowance losses which, can negate the entire annual pay raise.<sup>9</sup>

## CONCLUSIONS

The development of a housing allowance rate setting system based solely on external (non-DoD) rental housing cost data is not possible at this time. Even the best external data source - the American Housing Survey (AHS) - is insufficient to DoD's requirement to set annual VHA rates for all pay grades and duty locations.

Absent the identification of a more suitable, external, price-based, data source, Fair Market Rents (FMRs), derived from the AHS are sufficient (e.g., timely, locally specific, and credible) for use as a measure of adequacy in establishing a housing allowance floor. Where the FMR, or alternate measure, exceeds the total housing entitlement based upon member-reported expenses, a floor-level allowance in lieu of rates calculated under the Department's current methodology is warranted.

The current use of separate indexes for annual adjustment of the two housing allowance programs, BAQ and VHA leads to underfunding of housing allowance programs and forces unwarranted allowance reductions in slower growth areas in order to fund still-insufficient increases in higher cost areas.

Many members (of all Services) reside in quarters considered inadequate by existing standards; however, shipboard berthing is considered to be the worst. All members in this circumstance, except single members in grades below E-7, receive compensation in the form of either a reduced BAQ payment or entitlement to reside ashore and draw full housing allowances. This inequitable situation for single members below E-7 should be corrected through a combination of expanded entitlements to housing allowances and expanded construction of bachelor quarters.

---

<sup>9</sup> An amendment to the Bateman Amendment replaces the term "member" with the phrase "members of the same pay grade and dependency status and Military Housing Area". This change facilitates the implementation of the original amendment without violating its intent. Net pay equals sum of Basic Pay, BAQ, BAS, and VHA. See Chapter 5 for further discussion.

Current payment of BAQ for court-ordered support of legitimate and illegitimate children is inequitable and inconsistent with the historical basis of BAQ which supports the entitlement of differing rates by dependency status. BAQ entitlement for court-ordered child support payments should be limited to the difference between the "with-" and "without-dependents" BAQ rates.

In cases of divorce between members married to other members, the payment of BAQ at the "with-dependents" rate for child support to the non-custodial parent disenfranchises the custodial member. Absent an agreement between the members involved, the "with-dependents" rate of BAQ and VHA should be paid to the custodial member.

Denial of VHA to single members above the grade of E-6 who are assigned to sea duty, elect to live ashore, and who receive BAQ at the "with dependents" rate based solely upon the payment of child support is an unintended result of separate legislative provisions and should be corrected. Similarly, requiring a member who is married to, and resides with, another member to give up his/her housing allowances when assigned to sea duty is an inequity, given that a member of the same rank but married to a civilian retains his/her allowance.

Under the current system, individual members in declining housing markets are penalized by mandated VHA rate reductions which effectively prevent them from receiving all of the annual pay raise to which they would otherwise be entitled.

The legislative authorities for the BAQ and VHA programs overly restrict the Secretary of Defense's ability to manage the housing allowance accounts effectively.

Corrective actions associated with the findings and conclusions presented above will require amendments to title 37 United States Code, sections 403 and 403a and title 10 United States Code section 2830.

Cost estimates for the recommendations below are contained at Appendix T.

## **RECOMMENDATIONS**

### **1. BAQ Linkage to Basic Pay**

- a. Establish a single variable Housing Allowance (HA) for the United States, including Alaska and Hawaii, where:  $HA = LMHC - .15 NMHC$ .
- b. For annual pay adjustments BAQ should be combined with VHA and the combined programs adjust on the basis of the rental component of the Consumer Price Index (CPI).
- c. Establish Dislocation Allowance (DLA) and Family Separation Allowance (FSA I) at 60 percent of National Median Housing Cost.

## **2. Adequacy of Housing Allowances**

- a. Establish a monetary floor for Total Housing Allowances (BAQ plus VHA or a combined, single Housing Allowance).
- b. Adopt the Fair Market Rent (FMR), or alternative external measure of rental unit prices, as a floor-level housing allowance to replace the computed HA when HA is lower than the floor unless the floor itself is less than 60 percent of the National Median Housing Cost for each pay grade and dependency status (i.e., the current rate of BAQ).

## **3. Sea/Field Duty**

- a. Amend 10 USC 2830 to authorize a reduced BAQ forfeiture for single members occupying inadequate quarters on the same basis as members with dependents who occupy inadequate quarters and 37 USC 403c(2) to specify that shipboard quarters may be considered inadequate for this purpose.
- b. Amend title 37 United States Code to entitle all single members in pay grade E-5 and above to adequate quarters ashore or equivalent housing allowances.
- c. Consistent with other construction and budgetary requirements, develop and implement a DoD-wide program to upgrade inadequate BEQs, or construct new BEQs, in locations where pressing, long-term requirements exist, such as large troop concentration areas and homeports.
- d. Amend 37 USC 403 to entitle all dual-Service couples on sea duty or assigned to the same or adjacent duty stations to be provided adequate quarters ashore or equivalent housing allowances.
- e. Amend 37 USC 403a to entitle single members in pay grade E-7 assigned to sea duty but electing not to occupy government quarters to VHA at the "without-dependents" rate when they are receiving BAQ at the "with-dependents" rate solely on the basis of child support.

## **4. Contractual Protection**

- a. Develop an equitable method of contractually protecting individual members from rate declines while at the same duty station unless their actual housing expenses decline (in which case, individual allowances should be reduced only to the extent that individual housing costs decline or to the existing rate whichever is higher).
- b. Implement an annual housing expenditure certification program.

## **5. Additional Management Authority** Request legislation which gives the Secretary of Defense authority to establish temporary special rates under emergency conditions at the local level (i.e., Military Housing Area or County Cost Group) without a survey.

6. Between Pay Grade Inversions. Modify VHA ratesetting methodology to preclude higher ranking members within the separate pay grade categories - enlisted, warrant officer, prior enlisted commissioned officers and non-prior service commissioned officer - from receiving a lower total housing allowance than a member in a lower pay grade. This recommendation is accomplished by the repeal of 37 USC 403a(e)(2)(A).
7. Dual Service Couples
  - a. Maintain current BAQ/VHA policies concerning award of "with-dependents" versus "without-dependents" allowances for dual member families (excluding divorce situations).
  - b. Continue to view Government quarters as an element of compensation adequate for maintaining a household.
8. Child Support and BAQ
  - a. Amend title 37, United State Code to entitle non-custodial members receiving BAQ at the "with-dependents" rate, solely on the basis of child support, to an allowance equal the difference between the "with-dependent" and "without-dependents" rates of BAQ provided the member demonstrates equal to this amount.
  - b. Permit dual service members with dependents, at the time of divorce or separation, to choose which member will receive housing allowances at the "with dependents" rate. In the absence of a mutual decision, the Services should pay the "with-dependents" rate to the member with physical custody. In either case, the custodial member should receive VHA at the "with-dependent" rate.



## ALLOWANCES

### APPENDIX G—CURRENT VHA RATE-SETTING METHODOLOGY

The following information was provided to the 7<sup>th</sup> QRM by the Per Diem, Travel, and Transportation Allowance Committee (PDTATAC) and describes the method used to develop Variable Housing Allowance (VHA) rates.

- VHA is an entitlement payable to uniformed service members who reside in high-cost areas within the 50 states and who are authorized to receive the Basic Allowance for Quarters (BAQ). VHA supplements the BAQ.
- The legislation authorizing VHA specifies that the amount of the VHA for a given pay grade in a specific geographic location is the difference between the local median monthly cost of housing for that pay grade and 80 percent of the nationwide median monthly cost of housing for that pay grade.
- For the purpose of defining the term *locality*, in the VHA law and as the basis for calculating local median housing costs, the uniformed services have concurred in aggregating individual service members' residences into groups called Military Housing Areas (MHAs). An MHA includes service members' residences, generally within 20 miles or one hour's driving in rush-hour traffic, surrounding a duty station. Operationally, an MHA can be defined as a collection of ZIP codes. There are about 350 geographic MHAs in the continental United States, named for the installation or the nearest city (e.g., Washington, DC, Denver, Fort Hood, Castle AFB, etc.)
- Service members' monthly housing costs are determined by periodic nationwide surveys of uniformed service members. From 1980 to 1984, the VHA survey was conducted annually. From 1984 to 1988, the survey was conducted every other year, with a cost-of-living adjustment performed in the non-survey years. A census was taken in 1990 and was performed again in 1991.
- In computing median housing costs within a paygrade, data from both single and married members are used in the computation.
  - For renters, the variables used to compute median housing cost include monthly rent payments; and average monthly cost of utilities, maintenance, and renters' property and liability insurance.
  - For owners, the median housing cost of housing is inferred from the housing costs of renters living in equivalent housing. This equivalent cost represents the rental cost of a residence of the same type (single detached, townhouse,

apartment or mobile home) and size (1, 2, 3, 4, or more bedrooms) occupied by a service member of the same grade and marital status. Homeowners' *monthly mortgage payments* are not used in the computation because the monthly cash outlays of homeowners are not correlated with the accounting costs of homeownership. (The variables needed to compute accounting costs for homeowners include such difficult-to-measure factors as the expected appreciation in the value of the residence, the amount of down payment, the opportunity costs of interest foregone from down payments, settlement costs, and the tax savings due to the deduction of interest payments.) Therefore a rental equivalency value is used to represent homeowners' cost of housing. A similar approach is used by the Bureau of Labor Statistics in computing homeowners' costs for the Consumer Price Index.

- A certain minimum population of service members is necessary to attain statistically reliable VHA rates. When the density of uniformed service members in a locality is insufficient to establish reliable VHA rates using local survey data alone, these local data are aggregated with reported housing costs of members living in other localities with comparable housing costs as determined by the Department of Housing and Urban Development. The result is a group of counties with comparable costs. The costs of housing for service members living in such County Cost Groups (CCGs) are used to calculate median housing costs for each pay grade, and VHA rates are calculated for each group of counties. Although half the U.S. counties (about 1,500) are in County Cost Groups; these counties contain less than two percent of the uniformed services population eligible to receive VHA.
- Once the median housing cost is determined for each pay grade within an MHA or CCG, the VHA rate is computed by comparing the local median with the national median, as described in paragraph 2 above. If the local median is equal to or less than 80 percent of the national median, no VHA is payable for that grade in that area.
- Unless otherwise provided for in law, the total amount that could be spent on VHA in a fiscal year has been determined by the growth in the *military housing cost index* from the previous year and any limitations placed on expenditures by Congress. The military housing cost index is the housing component of the Consumer Price Index adjusted to reflect expenditure patterns of members of the uniformed services. If the VHA rates determined under paragraph 2 cause the allowable total to be exceeded, then the rates are reduced as necessary to stay within the total.
- The VHA program is governed by regulations contained in Volume 1 of the Joint Travel Regulations, and is administered under the auspices of the Per Diem, Travel and Transportation Allowance Committee. This is a joint uniformed service group administered by the Department of Defense; it includes voting representation of all the uniformed services.

## ALLOWANCES

### APPENDIX H—1985 DOD SURVEY ANALYSIS

During the 1985 DoD Survey of Enlisted Personnel, members were asked the following question:

Question # E17. *Think about your PCS move to your current permanent post, base or duty station. Answer even if this is your first assignment.*

*For each item below, mark if it was:*

*Serious problem, Somewhat of a problem, Slight problem, Not a problem, Not applicable, Don't know.*

(k) *Finding permanent housing.*

The 7<sup>th</sup> QRMC analyzed the responses to this question made by members who were living off-base when the survey was conducted. The survey data were grouped into MHAs to facilitate an area-by-area comparison. *Not applicable* and *Don't know* responses were removed from the sample, and MHAs with less than 10 respondents were excluded from the analysis.

Two measures were developed to gauge the level of difficulty members within an MHA expressed in finding off-base housing. The first measure, called *PERCENT*, represents the percentage of members in an MHA reporting other than a *Serious problem* or *Somewhat of a problem*. The second measure, called *INDEX*, is an index developed by assigning point values to each response according to the following schedule.

<u>Response</u>	<u>Point Value</u>
<i>Serious problem</i>	1
<i>Somewhat of a problem</i>	2
<i>Slight problem</i>	3
<i>Not a problem</i>	4

Thus, the lower an MHA's index, the greater the level of difficulty reported by members in finding off-base housing.

Two explanatory variables were used in the analysis: (1) *VHAPOP* represents the number of VHA-eligible members in an MHA, and (2) *THA* represents the HA entitlement (BAQ + VHA) for an E-6 with dependents. (Both *VHAPOP* and *THA* are based on 1991 data—see Attachment J.)

## HYPOTHESIS TESTING

We tested for correlation between the explanatory variables (*VHAPOP*, *THA*) and the response variables (*PERCENT*, *INDEX*) using a nonparametric statistic—the Spearman rank correlation coefficient.<sup>1</sup> The hypothesis test was specified as follows:

- $H_0$ : The explanatory and response variables are mutually independent.
- $H_1$ : There is a tendency for the larger values of the explanatory and response variables to be paired together.

Four hypotheses were tested using 6,825 responses from 106 MHAs. The results are summarized in Table H-1.

### Summary

In Table H-1,  $\alpha$  represents the significance level of the test—that is, the maximum probability of rejecting  $H_0$  when  $H_0$  is true. Using *VHAPOP* as our explanatory variable, we reject (with > 95% certainty) the hypothesis that there is no correlation between the size of an area's VHA population and difficulty reported in finding off-base housing. *Our conclusion is that areas with larger VHA populations had fewer reported problems finding housing.*

Table H-1. Hypothesis Test Results

Explanatory Variable	Response Variable	$T$	$\rho$	$\alpha$
<i>VHAPOP</i>	<i>INDEX</i>	164,140	.173	.038
<i>VHAPOP</i>	<i>PERCENT</i>	165,908	.164	.047
<i>THA</i>	<i>INDEX</i>	182,558	.080	.207
<i>THA</i>	<i>PERCENT</i>	183,332	.076	.219

---

<sup>1</sup>See Conover, *Practical Nonparametric Statistics*, Wiley, 1980, pp. 252-5.

## ALLOWANCES

### APPENDIX I—FACT SHEET RUNZHEIMER INTERNATIONAL LTD.

- Headquarters: Rochester, Wisconsin, and branch offices in Chicago, Toronto, and London
  - Family owned, began in 1933, living cost division established in 1969
  - 200 full time employees, with 3,000 part time research assistants in the U.S. and 85 countries
- 2,000 businesses and government agencies, including 300 of the fortune 500 companies, are clients (partial list at Attachment 1)
- Determines direct reimbursements of \$1 billion and \$17 billion in reimbursements based on Runzheimer's data
- According to *Consultants News*, rated since 1979 as one of the top 100 management consulting firms in the U.S.
- Examples of how organizations use Runzheimer's data:
  - Internal Revenue Service (IRS) sets U.S. mileage rates
  - General Services Administration (GSA) sets meals and lodging per diem rates
  - American and Canadian automobile associations set automobile cost and allowances rates;
  - Office of Personnel Management (OPM) sets cost-of-living allowance rates, including housing costs, for federal civilians in Alaska, Hawaii, and U.S. territories; and
  - General Accounting Office (GAO) used Runzheimer data in their 1989 congressional testimony on U.S. cost of living
- Methodology
  - Compares purchasing power relationships between locations and the U.S. average cost of living, based on a national standard—called *Standard City, USA*
  - Produces indexes showing what percent of income is necessary to maintain, according to income level, the same standard of living as Standard City

#### Attachments:

1. Partial client list

## PARTIAL LIST OF RUNZHEIMER LIVING COST DIVISION CLIENTS

### A T & T

Adolph Coors Company  
Allen-Bradley Corporation  
Allstate Insurance Company  
American Family Insurance Company  
American Sterilizer Company  
Ameritech Corporation  
Amoco Corporation  
Amway  
ARCO  
Arthur Andersen & Co.  
Associated Press

Bank of America  
Bank of Boston  
Baxter Healthcare Corporation  
Bayer AG  
Best Products Company, Inc.  
BMW of North America  
Boeing Company  
Borden, Inc.  
Borg-Warner  
Boston Edison Company  
Bristol-Myers Company  
Burger King Corporation  
Busch Properties, Inc.

Cargill, Inc.  
Champion International  
Chicago Tribune  
Chrysler First  
Chubb Group of Insurance Companies  
Cigna Corporation  
Clorox Company  
Coca-Cola Enterprises  
Continental Can Company  
Coopers & Lybrand

Digital Equipment Corporation  
Dow Chemical USA  
Dow Jones & Company, Inc.  
Dun & Bradstreet Credit Services

E.I. du Pont de Nemours & Company, Inc.  
Eastman Kodak Company  
Eli Lilly and Company  
Ernest & Young  
Eveready Battery  
Exxon Company, U.S.A.

Federal Deposit Insurance Corporation  
Federal Express Corporation  
First National Bank of Chicago  
Floor Daniel  
FMC Corporation  
Ford Motor Company  
Foxboro Company  
Friendly Ice Cream Corporation

General Mills, Inc.  
General Motors Corporation  
Guy F. Atkinson Company

Hallmark Cards, Inc.  
Hercules Incorporated  
Hewlett-Packard Company  
Hughes Aircraft Company

IBM (USA)  
Industrial Risk Insurers

Jones, Day, Reavis & Pogue

Kraft, Inc.

McDonald's Corporation  
Miami Herald  
Michelin Tire Corporation  
Miller Brewing Company  
Mitre Corporation  
Mobay Chemical Corporation  
Monsanto Company  
Moore

Nationwide Insurance Company  
NYNEX Corporation

Pan American World Services, Inc.  
Philadelphia Inquirer  
Philip Morris Management Corporation  
Phillips Petroleum Company  
Pillsbury Company  
Procter & Gamble Company

R. R. Donnelley & Sons  
RJR Nabisco, Inc.  
Rolls-Royce Inc.

S.C. Johnson & Son, Inc.  
Shell Oil Company  
Square D Company  
Stroh Brewing Company  
Sun Company, Inc.

Tambrands, Inc.  
Texaco Inc.  
Time Inc.  
Toronto Dominion Bank

United States Fidelity and Guaranty Company  
Upjohn Corporation

Virginia Power Company  
Volvo North America Corporation

Walt Disney World Company  
Wyerhaeuser Company

## ALLOWANCES

### APPENDIX J—PRICE-BASED HOUSING ALLOWANCES FOR 84 MHAs

Table J-1 of this appendix lists price-based housing allowances computed from Runzheimer rental expense data for a random sample of 84 MHAs. The total housing allowance (THA) and size of the VHA-eligible population for E-6s with dependents are also identified for each MHA.

The rental expense data were collected by Runzheimer International and reflect typical rental expenses, in March 1991, for a family of four at the \$30,000 annual income level. The standard rental profile priced by Runzheimer in all locations is a 1,300-square-foot apartment, with 5 rooms, 3 bedrooms, and 2 baths.

The price-based housing allowances were computed using equation (1) of Chapter 4, where the  $P_i$ 's equal the Runzheimer rental expenses. An absorption factor of 19.2 percent (1991 rate) was applied.

The E-6 THA (with dependents) is equal to the sum of BAQ and VHA (1991 rates). The number of VHA-eligible E-6s with dependents in each MHA is based on data from the Joint Uniform Military Pay System (JUMPS), adjusted to coincide with total strength figures from the FY91 President's Budget. Both the allowance rates and the strength figures were provided to the QRMC by the Per Diem, Travel, and Transportation Allowance Committee (PDTATAC).

Table J-1. Price-based Housing Allowance for 84 Sample MHAs

MHA	Location	State	Code	Runzheimer Costal Expense	Price Based Allowance	E-4 (with) TMA	E-4 Population
CA392	San Luis Obispo	CA	SANL	\$1,213	\$1,077	\$599	19
CA036	Travis Afb	CA	TRAV	\$1,199	\$1,063	\$707	819
CA025	Ventura	CA	VENT	\$1,015	\$879	\$825	470
CA018	Oakland	CA	OAKL	\$977	\$841	\$808	1141
MD127	Aberdeen Prvng Grnds	MD	ABPG	\$901	\$765	\$533	313
NY222	Griffiss AFB	NY	GRIF	\$895	\$759	\$522	282
OH229	Cleveland S2	OH	CLEV	\$884	\$748	\$504	201
WA307	Everett	WA	EVER	\$863	\$727	\$626	35
CA028	Fort Irwin	CA	FTIR	\$858	\$722	\$584	142
PA249	NAS Willow Grove	PA	NAS	\$839	\$703	\$721	352
AZ016	Yuma	AZ	YUMA	\$829	\$693	\$583	242
IL093	Scott AFB	IL	SCOT	\$826	\$690	\$512	389
NY215	Ballston Spa	NY	BALL	\$822	\$686	\$600	435
CO047	Fort Collins	CO	FTCO	\$817	\$681	\$465	18
MI154	Grand Rapids B	MI	GRAN	\$816	\$680	\$476	37
NY216	Buffalo	NY	BUFF	\$809	\$673	\$432	89
NY226	Binghamton/Ithaca	NY	BING	\$773	\$637	\$529	39
VA295	Charlottesville	VA	CHAR	\$771	\$635	\$518	22
PA252	State College B	PA	STAT	\$763	\$627	\$473	15
ME390	Bangor	ME	BANG	\$759	\$623	\$557	51
NY225	Fort Drum	NY	DRUM	\$753	\$617	\$545	196
WA315	Aberdeen	WA	ABER	\$744	\$608	\$445	2
MI341	Flint B	MI	FLIN	\$740	\$604	\$466	23
DE054	Dover AFB	DE	DOVE	\$739	\$603	\$541	287
GA071	Atlanta S2	GA	ATLA	\$735	\$599	\$584	612
FL057	Gainesville	FL	GAIN	\$732	\$596	\$489	35
PA255	Allentown B	PA	ALLN	\$728	\$592	\$571	36
IN094	Fort Harrison	IN	FTHR	\$724	\$588	\$467	374
TX277	Dallas S2	TX	DALL	\$704	\$568	\$550	506
IA082	Des Moines	IA	DESM	\$702	\$566	\$524	94
CA032	Twentynine Palms	CA	TWEN	\$698	\$562	\$456	265
WI316	Madison	WI	MADI	\$695	\$559	\$442	41
MO161	St Louis S2	MO	STLO	\$692	\$556	\$527	236
FL056	Eglin AFB	FL	EGLI	\$688	\$553	\$463	1151
KY110	Fort Knox	KY	KNOX	\$685	\$549	\$419	963
OH232	Toledo B	OH	TOLE	\$682	\$546	\$466	56
SC261	Greenville	SC	GRNV	\$676	\$540	\$484	72
FL066	Tampa	FL	TAMP	\$673	\$538	\$538	779
ND189	Fargo	ND	FARG	\$667	\$531	\$467	38
KS102	Fort Leavenworth	KS	FTLV	\$666	\$530	\$485	141
MD131	Fort Ritchie	MD	FTRI	\$661	\$525	\$487	99
TN269	Nashville	TN	NASH	\$656	\$520	\$525	154
NM206	Albuquerque	NM	ALBU	\$653	\$517	\$512	289
WV320	Morgantown	WV	MORG	\$651	\$515	\$419	22
IL335	Decatur	IL	DECA	\$650	\$514	\$439	82



Table J-1 Continued

MHA	Location	State	Code	Runzheimer Rental Expense	Price-Based Allowance	E-6 (with) THA	E-6 Population
KY109	Louisville B	KY	LOUI	\$649	\$513	\$419	135
MI145	Sault Ste Marie	MI	SAUL	\$648	\$513	\$419	3
VA298	Norfolk/Portsmouth	VA	NORF	\$644	\$509	\$578	10551
FL328	Avon Park/Sebring	FL	AVON	\$643	\$507	\$455	24
KY107	Lexington B	KY	LEXI	\$640	\$504	\$479	31
AR010	Little Rock	AR	LITT	\$640	\$504	\$452	491
IN337	Evansville B	IN	EVAN	\$638	\$502	\$476	27
NC184	Greensboro	NC	GRNB	\$637	\$501	\$460	79
FL058	Jacksonville	FL	JACK	\$632	\$496	\$527	3890
PA383	Johnstown B	PA	JOHN	\$626	\$490	\$419	20
WA313	Yakima	WA	YAKI	\$617	\$481	\$508	25
GA073	Fort Gordon	GA	FTGO	\$602	\$466	\$448	886
VA304	Wallops Island	VA	WALL	\$601	\$465	\$521	13
AL002	Fort Rucker	AL	FTRU	\$596	\$460	\$419	449
AZ015	Davis-Montham AFB	AZ	DAVM	\$596	\$460	\$485	493
FL397	Polk County	FL	POLK	\$595	\$459	\$456	29
OH233	Youngstown B	OH	YOUN	\$592	\$456	\$419	30
TX288	Wichita Falls	TX	WICH	\$591	\$456	\$439	216
MS168	Gulfport	MS	GULF	\$591	\$455	\$419	859
AL008	Tuscaloosa	AL	TUSC	\$591	\$455	\$450	21
AZ017	Navajo County	AZ	NAVA	\$588	\$452	\$419	6
TN354	Manchester/Tullahoma	TN	MANC	\$579	\$443	\$419	21
MO162	Whiteman AFB	MO	WHIT	\$574	\$438	\$437	150
TX285	San Antonio	TX	SANA	\$573	\$437	\$474	2234
AL005	Montgomery	AL	MONT	\$571	\$436	\$462	389
KY106	Fort Campbell	KY	FTCM	\$570	\$434	\$419	1259
WI319	Appleton	WI	APPL	\$565	\$429	\$517	17
NM208	Gallup	NM	GALL	\$553	\$417	\$419	2
WY324	Cheyenne	WY	CHEY	\$552	\$417	\$433	248
GA080	Fort Stewart	GA	FTST	\$552	\$416	\$455	864
SC263	Sumter/Shaw AFB	SC	SUMT	\$542	\$406	\$459	379
CO046	Colorado Springs	CO	COLS	\$538	\$402	\$456	1827
WV360	Beckley	WV	BECK	\$491	\$355	\$419	20
TX289	Beeville	TX	BEEV	\$488	\$352	\$419	32
ID087	Pocatello	ID	POCA	\$486	\$350	\$419	13
OK235	Altus AFB	OK	ALTU	\$484	\$348	\$419	253
MO163	Fort Leonard Wood	MO	FTLW	\$480	\$344	\$419	445
MS169	Columbus AFB	MS	COLU	\$466	\$330	\$444	56
WV321	Sugar Grove	WV	SUGA	\$416	\$280	\$419	6

## ALLOWANCES

### APPENDIX K—GRAPHS: PRICE-BASED HA vs. E-6 THA

Figures K-1 to K-3 of this appendix show the price-based housing allowances graphed against the E-6 with dependents THA for the random sample of 84 MHAs. The monthly allowance amount is read from the left vertical scale. The right vertical scale shows the size of the E-6 with dependents VHA-eligible population.

The data represented in figures K-1 to K-3 are described and listed in Appendix J.

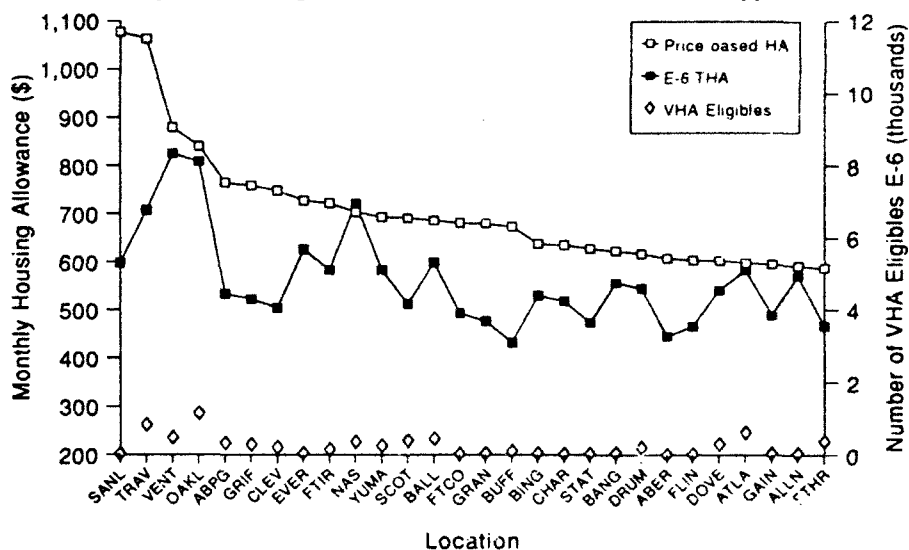


Figure K-1. Price-Based Housing Allowances, 28 highest cost from sample of 84 MHAs

SANL	San Luis Obispo, CA	YUMA	Yuma, AZ	DRUM	Fort Drum/Watertown, NY
TRAV	Vallejo/Travis AFB, CA	SCOT	Scott AFB, IL	ABER	Aberdeen, WA
VENT	Ventura, CA	BALL	Ballston Spa/Albany, NY	FLIN	Flint, MI
OAKL	Oakland, CA	FTCO	Fort Collins, CO	DOVE	Dover AFB, DE
ABPG	Aberdeen Proving Grounds, MD	GRAN	Grand Rapids, MI	ATLA	Atlanta, GA
GRIF	Rome/Griest AFB, NY	BUFF	Buffalo, NY	GAIN	Gainesville, FL
CLEV	Cleveland, OH	BING	Binghamton/Ithaca, NY	ALLN	Allentown/Bethlehem, PA
EVER	Everett, WA	CHAR	Charlottesville, VA	FTHR	Indianapolis/FT Harrison, IN
FTIR	Barstow/Fort Irwin, CA	STAT	State College, PA		
NAS	NAS Willow Grove, PA	BANG	Bangor, ME		

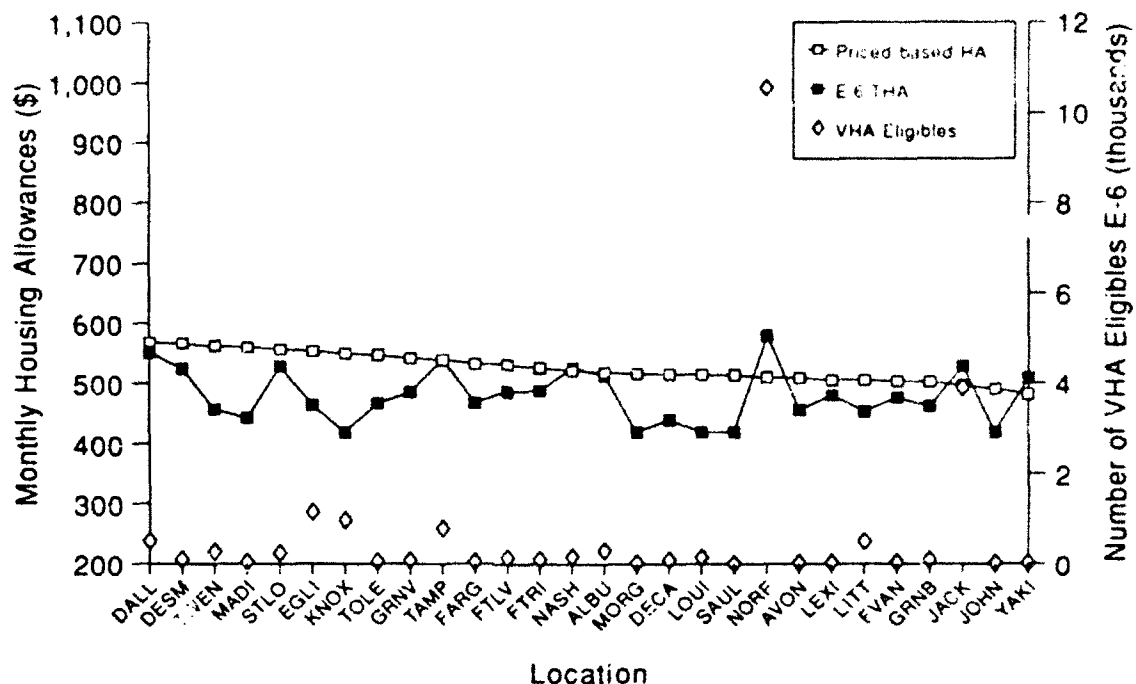


Figure K-2. Price-Based Housing Allowances, 29th-56th sample of 84 MHAs

DALL	Dallas, TX	ALBU	Albuquerque/Kirtland AFB, NM
DESM	Des Moines, IA	MORG	Morgantown, WV
TWEN	Twentynine Palms MCB, CA	DECA	Springfield/Decatur, IL
MADI	Madison, WI	LOUI	Louisville, KY
STLO	St. Louis, MO	SAUL	Sault Ste Marie, MI
EGLI	Eglin AFB, FL	NORF	Norfolk/Portsmouth, VA
KNOX	Fort Knox, KY	AVON	Avon Park/Sebring, FL
TOLE	Toledo, OH	LEXI	Lexington, KY
GRNV	Greenville, SC	LITT	Little Rock, AR
TAMP	Tampa, FL	EVAN	Evansville, IN
FARG	Fargo, ND	GRNB	Greensboro, NC
FTLV	Fort Leavenworth, KS	JACK	Jacksonville, FL
FTRI	Fort Ritchie, MD	JOHN	Johnstown, PA
NASH	Nashville, TN	YAKI	Yakima, WA

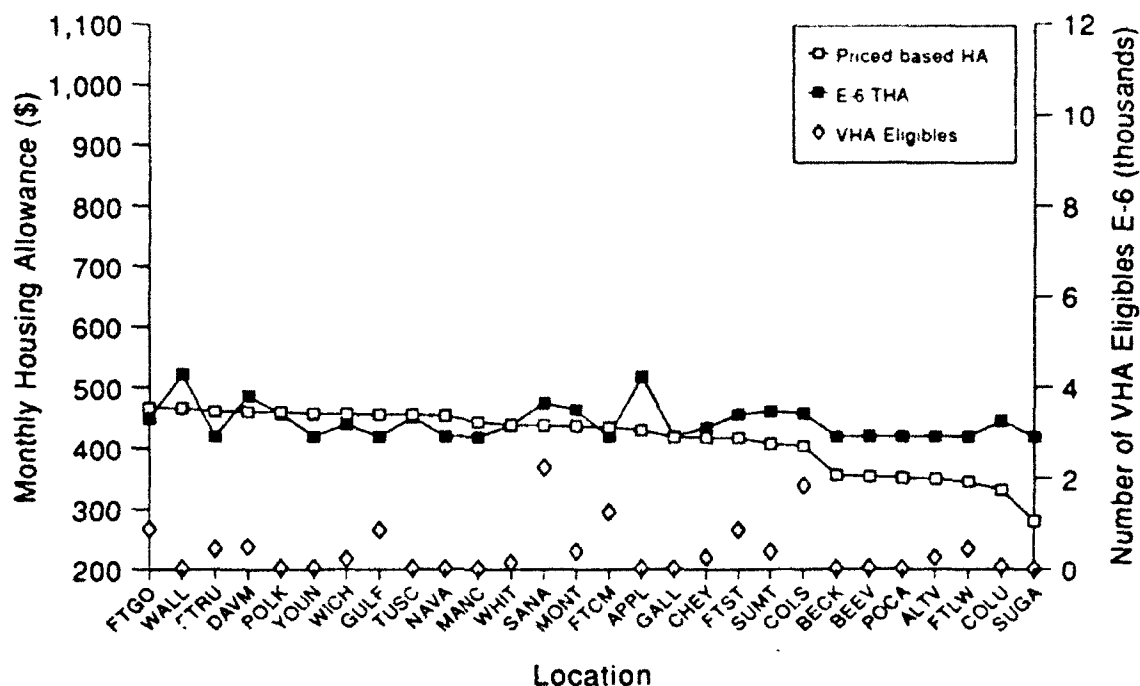


Figure K-3. Price-Based Housing Allowances, 28 lowest cost form sample of 84 MHAs

FTGO	Fort Gordon, GA	FTCM	Fort Campbell, KY
WALL	Wallops Island, VA	APPL	Oshkosh/Appleton, WI
FTRU	Fort Rucker, AL	GALL	Gallup, NM
DAVM	Davis-Monthan AFB, AZ	CHEY	Cheyenne, WY
POLK	Polk County, FL	FTST	Fort Stewart, GA
YOUN	Youngstown, OH	SUMT	Sumter/Shaw AFB, SC
WICH	Wichita FIs/Sheppard AFB, TX	COLS	Colorado Springs, CO
GULF	Gulfport, MS	BECK	Beckley, WV
TUSC	Tuscaloosa, AL	BEEV	Beeville, TX
NAVA	Navajo County, AZ	POCA	Pocatella, ID
MANC	Manchester/Tullahoma, TN	ALTU	Altus AFB, OK
WHIT	Whiteman AFB, MO	FTLW	Fort Leonard Wood, MO
SANA	San Antonio, TX	COLU	Columbus AFB, MS
MONT	Montgomery, AL	SUGA	Sugar Grove, WA

## ALLOWANCES

### APPENDIX L—REGRESSION ANALYSIS

Regression analysis was used to explore the relationship between an MHA's price allowance, current HA entitlement, and VHA population size. The generalized least-squares regression model was specified as:

$$PA_i = B_1 + B_2(THA_i) + B_3(WT_i),$$

where  $PA_i$  equals the price allowance for MHA  $i$ ,  $THA_i$  equals the E-6 (with dependents) HA for  $i$ , and  $WT_i$  is the number of VHA-eligible members in MHA $_i$ . (See Attachment J for a listing of these variables for the 84 MHAs.)

The regression statistics are shown in Table L-1.

Table L-1. Regression Results

Coefficient	Standard Error	T-statistic	$P(H_0: B_i=0)$
$B_1 = -196.548$	18.509	-10.619	< .001
$B_2 = 1.474$	.030	48.746	< .001
$B_3 = -1.515$	.105	-14.421	< .001
Adjusted $R^2 = .769$			

We see from the table that  $WT_i$  is a significant predictor of  $PA_i$ , suggesting that the size of an area's VHA population is a meaningful factor in explaining differences between the current HA level and the price allowance. Moreover, the coefficient  $B_1$  is negative, indicating that the larger the  $WT_i$ , the larger  $THA_i$  is in relation to  $PA_i$ .

## ALLOWANCES

### APPENDIX M—FAIR MARKET RENT CALCULATION METHOD

The Department of Housing and Urban Development (HUD) publishes Fair Market Rents (FMRs) for the Section 8 Existing Assisted Housing Program. The documentation presented in this appendix describes the FMR calculation method and was provided by the Office of Policy Development and Research, HUD. (Publication date: March 1990.)

#### Contents:

- I. Overview
- II. FMR Standard
- III. Data Sources
- IV. Calculation Process
- V. Review of Public Comments
- VI. FMR Exceptions

#### Attachments:

- (1) Flow Charts of FMR Calculation Process
- (2) FMR Calculation Procedures for Miami Area (American Housing Survey (AHS) Available)
- (3) FMR Calculation Procedures for Fort Myers (No AHS Available)
- (4) 44 Cities Surveyed in the Metropolitan Sample of the AHS

FAIR MARKET RENTS (FMRs) FOR  
THE SECTION 8 EXISTING ASSISTED HOUSING PROGRAM  
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

I. Overview

Fair Market Rents (FMRs) determine the eligibility of rental housing units for the Section 8 Existing Housing program. Section 8 Certificate-holders cannot rent units whose rents exceed the FMRs. FMRs also serve as the payment standard used to calculate subsidies under the Housing Voucher program. HUD estimates FMRs on an annual basis for 339 metropolitan areas and 2,416 nonmetropolitan counties in the United States.

II. FMR Standard

FMRs are gross rent estimates; they include shelter rent plus the cost of all utilities, except telephone. HUD sets FMRs to assure that a sufficient supply of rental housing is available to program participants. To accomplish this objective, FMRs must be both high enough to permit a selection of units and neighborhoods and low enough to serve as many low-income families as possible. The level at which FMRs are set is expressed as a percentile point within the rent distribution of standard quality rental housing units. The current definition used is the 45th percentile rent, the dollar amount below which 45 percent of the standard quality rental housing units rent. The 45th percentile rent is drawn from the distribution of rents of all units which are occupied by recent movers, except for public housing and newly built units.

III. Data Sources

In developing FMR estimates, HUD uses the most accurate and current data available. FMRs are based primarily on decennial Census data, American Housing Survey (AHS) data, and Consumer Price Index (CPI) data. The data used to calculate a specific FMR depend on whether or not an area is covered by a special metropolitan AHS.

AHS surveys cover 44 of the largest metropolitan areas, which contain about half of all rental housing. The surveys are conducted on a four-year cycle, 11 areas each year. Outside these areas, FMRs are based on the decennial Census of Housing. The AHS and the Census of Housing have similar standards of accuracy.

The FMRs are then updated each year by the Consumer Price Index for rent and utilities. Separate CPIs are available for 74 metropolitan areas, and for the four Census Regions.

#### IV. Calculation Process

HUD uses two separate but similar calculation procedures to prepare FMRs, depending on whether area FMRs are based on an AHS metropolitan survey or on 1980 Census data. Both procedures are explained below.

##### Areas where FMRs are based on AHS data:

##### Develop Base Year FMR Estimates:

1. HUD uses the AHS data to calculate the 45th percentile rent for the distribution of two-bedroom units occupied by recent movers. Public housing units, newly constructed units, and units that fail a housing quality test are excluded from the distribution before the calculation. This number becomes the "base year" FMR estimate for the area.

##### Update Base Year FMR Estimates:

2. The FMR base year gross rent estimates developed in step 1 are divided into utility and shelter rent components by subtracting the average utility amount paid by renters paying all utilities. The shelter rent and utility components are then updated using the CPI data available. HUD uses local CPI data where available, regional CPI data otherwise.
3. The updated shelter rent and utility components are added back together to get an updated FMR estimate.

##### Trending:

4. The CPI-updated FMR estimates are then trended to the mid-point of the Fiscal Year in which they will be used based on recent national CPI rent trends. Two years of trending are needed to cover the period between the most current CPI data and the forecast date for the FMR estimates. The updating and trending calculations described above are performed annually until new AHS data become available. Revising the estimates with the new data is called "rebenchmarking."

##### Bedroom Size Adjustments:

5. Because there are more two-bedroom rental units than any other size in most housing markets, survey samples of two-bedroom units are larger and, therefore, produce more accurate rent estimates. Standard ratios are applied to the two-bedroom FMR estimates to derive FMRs for other bedroom sizes. HUD uses higher ratios for three-bedroom and larger size units than would result using normal market relationships in order to increase the likelihood that the largest, most difficult to place families will be able to find a program-eligible unit.



Areas not covered by AHS surveys are based on 1980 Census data.

The calculation process is the same as above except for the first step, which is replaced with the following two steps:

1. HUD uses Census data on two-bedroom, recent mover units to calculate a 45th percentile rent for each area. Newly constructed units and units that have the types of housing deficiencies identifiable with Census data are removed before the calculation. The resulting estimates differ from AHS-based FMR estimates because they include public housing units and are based on fewer measures of housing quality.
2. A "housing quality adjustment factor" is developed with AHS data based on the relationship between the national FMR estimate derived using all AHS housing quality variables and the FMR estimate that results if only 1980 Census variables are used. Census-based FMR estimates are then adjusted using this factor to calculate what becomes the 1980 "base year" estimate for these areas.

After the 1980 Census "base year" estimates are calculated, the procedure followed is exactly the same as described in steps 2 through 5 above for AHS areas, except that "rebenchmarking" occurs only every 10 years.

Attachment 1 outlines the process used for both AHS and Census-based FMR areas. Attachments 2 and 3 show how the FMR process works for two areas that are within the same State. Miami, Florida shows how the estimation process applies in areas covered by AHS surveys. Fort Myers, Florida provides an example of how HUD calculates FMRs in areas where 1980 Census data are the starting point.

#### V. Review of Public Comments

HUD publishes FMRs in the Federal Register twice each year, first as proposed estimates to invite public comments, and then for final effect. The proposed FMRs are usually published in mid-April, and there is a 60-day comment period. By law, the final FMRs for use in a fiscal year must be published and available for use at the start of that fiscal year (October 1). The purpose of the public comments process is to identify areas where local government officials or residents believe the FMRs are too high or too low. Public Housing Agencies (PHAs) or other organizations responsible for operating the Section 8 program submit most comments. To be considered for FMR revisions, the comments must include statistically valid rental housing survey data that justifies the recommended changes. On average HUD receives public comments on about 100 areas each year; FMRs are usually revised for about one-third of these areas.

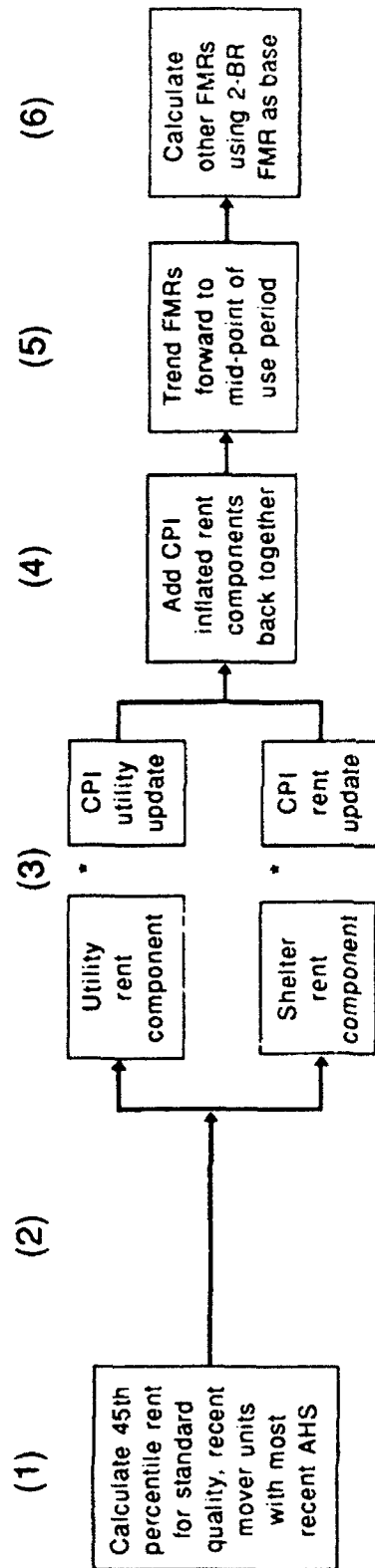
#### VI. FMR Exceptions

To ensure successful program operations, the Section 8 program rules allow for FMR exceptions to compensate for variations in rent levels and rental housing characteristics that exist within individual housing markets. The two major types of exceptions are:

1. PHAs may exceed FMRs by up to 10 percent for units that warrant such exception by virtue of their size, amenities or location, or because they have been modified to facilitate accessibility by the handicapped, or because they are needed to expand housing opportunities for low-income households. PHAs may permit up to 20 percent of their authorized units to use these exceptions; with HUD approval, a higher percentage of units may have such exceptions. HUD does not maintain data on the utilization rate for these types of exceptions, but they are believed to be used by many PHAs. Few PHAs request permission to use additional exceptions of this type.
2. Based on the request of a PHA, HUD may increase FMRs by up to 20 percent for geographic submarkets of a large FMR area. Requests for such exceptions may not be granted for more than 50 percent of a FMR area. Such requests must document the need for the higher rents and show that the requested rent does not exceed the average rent of units in the exception submarket. In the 60 FMR areas where 20 percent exceptions are in use, the areas covered are usually a small part of the FMR area.

# Attachment 1

## AHS Area Process:



## 1980 Census Area Process:

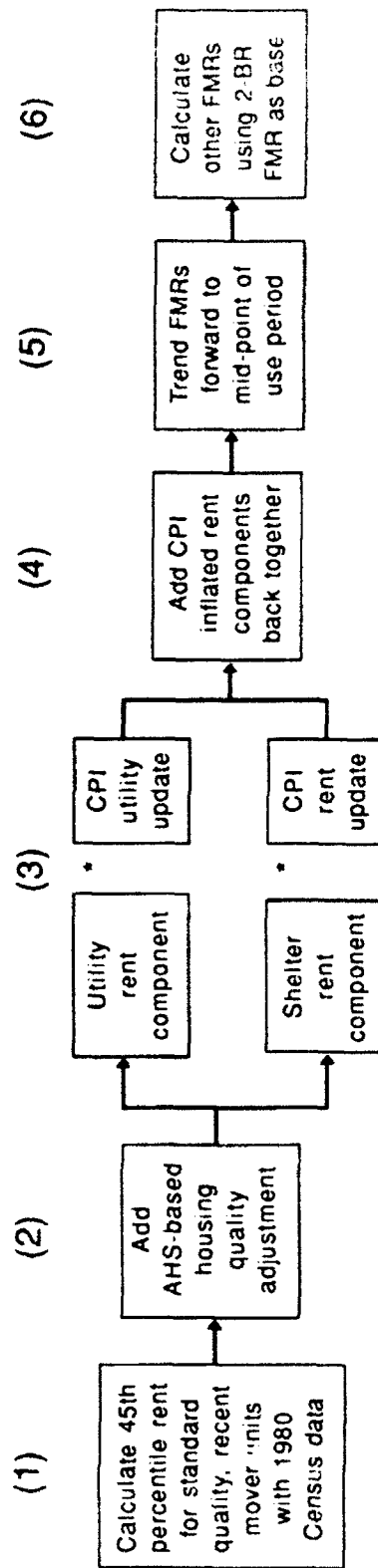


Figure M-1. Flow charts of FMR calculation process

Attachment 2  
FMR Calculation Procedures for Miami Area  
 (AHS Available)

1. 1986 AHS FMR standard \$505
  - o 45th percentile gross rent
  - o Only 2 bedroom units
  - o Only recent movers
  - o Exclude newly constructed units
  - o Exclude substandard units
  - o Exclude Public Housing units
2. 1986 gross rent was updated by:
  - o Separating gross rent of \$505 into
    - + Shelter rent \$423
    - + Utilities\*

(\*Based on State-wide estimate from 1980 Census of utilities paid by renters who paid for all utilities)
  - o Updating each component from 4/86 to 4/88 using CPI utilities and residential rent indices for locality
    - + Shelter rent      \* 1.03 \$435
    - + Utilities          \* 1.00 \$82
3. Updated components were added back together to get most current estimate possible with available CPI data \$517
4. Gross rent updated to 4/88 was trended to 4/90, the mid point of the fiscal year they were to be used by using a projection developed from national CPI data \$568
5. Standard ratios were then applied to the 2 bedroom estimate:

<u>EFF</u>	<u>1BR</u>	<u>2BR</u>	<u>3BR</u>	<u>4BR</u>
.70	.85	1.00	1.25	1.40
\$396	482	568	709	794

Attachment 3  
FMR Calculation Procedures for Fort Myers  
 (No AHS Available)

1.	1980 Census FMR standard	\$302
	<ul style="list-style-type: none"> <li>o 45th percentile gross rent</li> <li>o Only 2 bedroom units</li> <li>o Only recent movers</li> <li>o Exclude newly constructed units</li> <li>o Exclude substandard units</li> </ul>	
2.	1980 FMR standard housing quality adjustment procedure was applied	
	<ul style="list-style-type: none"> <li>o AHS data have more information on housing quality than 1980 Census and identify Public Housing units</li> <li>o comparison of AHS- and Census-based FMRs at the national level produces a factor which is used to adjust all FMRs without AHS</li> </ul>	\$308
3.	1980 adjusted gross rent was update by:	
	<ul style="list-style-type: none"> <li>c Separating gross rent of \$308 into               <ul style="list-style-type: none"> <li>+ Shelter rent \$253</li> <li>+ Utilities* \$55</li> </ul> </li> </ul>	
	(*Based on State-wide estimate from 1980 Census of utilities paid by renters who paid for all utilities)	
	<ul style="list-style-type: none"> <li>o Updating each component from 4/80 to 4/88 using CPI utilities and residential rent indices for Census Region               <ul style="list-style-type: none"> <li>+ Shelter rent * 1.52 \$385</li> <li>+ Utilities * 1.49 \$82</li> </ul> </li> </ul>	
4.	Updated components were added back together to get most current estimate possible with available CPI data	\$467
5.	The gross rent updated to 4/88 was trended to 4/90, the mid-point of the fiscal year they were to be used, by using a projection developed from national CPI data	\$513

6. Standard ratios were then applied to the 2 bedroom estimate:

<u>EFF</u>	<u>1BR</u>	<u>2BR</u>	<u>3BR</u>	<u>4BR</u>
.70	.85	1.00	1.25	1.40
\$360	436	513	643	721

#### Attachment 4

#### Cities and Survey Years for the Metropolitan Sample of the American Housing Survey

1988 - Birmingham, Buffalo, Cleveland, Indianapolis, Memphis, Milwaukee, Newport News, Oklahoma City, Providence, Salt Lake City, San Jose.

1989 - Boston, Dallas, Detroit, Ft. Worth, Los Angeles, Minneapolis, Philadelphia, Phoenix, San Francisco, Tampa, Washington, D.C.

1990 - Anaheim, Cincinnati, Denver, Kansas City, Miami, New Orleans, Pittsburgh, Portland, Rochester, San Antonio, San Bernardino.

1991 - Atlanta, Baltimore, Chicago, Columbus, Hartford, Houston, New York, Newark, St. Louis, San Diego, Seattle.

1992 - Cycle restarts with 1988 cities.

## ALLOWANCES

### APPENDIX N—1992 HOUSING ALLOWANCE RATES AND VHA POPULATION

This appendix contains HA rates and VHA populations broken down by MHA and paygrade. Four tables are included:

Table N-1: 1992 Housing Allowance Rates: With-Dependents

Table N-2: 1992 Housing Allowance Rates: Without-Dependents

Table N-3: 1992 VHA Population: With-Dependents

Table N-4: 1992 VHA Population: Without-Dependents

Housing allowance rates are for 1992. VHA populations are based on Joint Uniform Military Pay System (JUMPS) data, adjusted to coincide with strength figures in the FY92 President's Budget. All data were provided to the 7th QRMCC by the Per Diem, Travel, and Transportation Allowance Committee (PDTATAC).



	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV	CW	CX	CY	CZ	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ	DK	DL	DM	DN	DO	DP	DQ	DR	DS	DT	DU	DV	DW	DX	DY	DZ	EA	EB	EC	ED	EE	EF	EG	EH	EI	EJ	EK	EL	EM	EN	EO	EP	EQ	ER	ES	ET	EU	EV	EW	EX	EY	EZ	FA	FB	FC	FD	FE	FF	FG	FH	FI	FJ	FK	FL	FM	FN	FO	FP	FQ	FR	FS	FT	FU	FV	FW	FX	FY	FZ	GA	GB	GC	GD	GE	GF	GG	GH	GI	GJ	GK	GL	GM	GN	GO	GP	GQ	GR	GS	GT	GU	GV	GW	GX	GY	GZ	HA	HB	HC	HD	HE	HF	HG	HH	HI	HJ	HK	HL	HM	HN	HO	HP	HQ	HR	HS	HT	HU	HV	HW	HX	HY	HZ	IA	IB	IC	ID	IE	IF	IG	IH	II	IJ	IK	IL	IM	IN	IO	IP	IQ	IR	IS	IT	IU	IV	IW	IX	IY	IZ	JA	JB	JC	JD	JE	JE	JF	JG	JH	JI	IJ	JK	JK	KL	KL	LM	LM	LN	LN	LO	LO	LP	LP	LQ	LQ	LR	LR	LS	LS	LT	LT	LU	LU	LV	LV	LW	LW	LX	LX	LY	LY	LZ	LZ	MA	MA	MB	MB	MC	MC	MD	MD	ME	ME	MF	MF	MG	MG	MH	MH	MI	MI	MJ	MJ	MK	MK	ML	ML	MM	MM	MN	MN	MO	MO	MP	MP	MQ	MQ	MR	MR	MS	MS	MT	MT	MU	MU	MV	MV	MW	MW	MX	MX	MY	MY	MZ	MZ	NA	NA	NB	NB	NC	NC	ND	ND	NE	NE	NF	NF	NG	NG	NH	NH	NI	NI	NJ	NJ	NK	NK	NL	NL	NM	NM	NO	NO	NP	NP	NQ	NQ	NR	NR	NS	NS	NT	NT	NU	NU	NV	NV	NW	NW	NX	NX	NY	NY	NZ	NZ	OA	OA	OB	OB	OC	OC	OD	OD	OE	OE	OF	OF	OG	OG	OH	OH	OI	OI	OJ	OJ	OK	OK	OL	OL	OM	OM	ON	ON	OO	OO	OP	OP	OQ	OQ	OR	OR	OS	OS	OT	OT	OU	OU	OV	OV	OW	OW	OX	OX	OY	OY	OZ	OZ	PA	PA	PB	PB	PC	PC	PD	PD	PE	PE	PF	PF	PG	PG	PH	PH	PI	PI	PJ	PJ	PK	PK	PL	PL	PM	PM	PN	PN	PO	PO	PP	PP	PQ	PQ	PR	PR	PS	PS	PT	PT	PU	PU	PV	PV	PW	PW	PX	PX	PY	PY	PZ	PZ	QA	QA	QB	QB	QC	QC	QD	QD	QE	QE	QF	QF	QG	QG	QH	QH	QI	QI	QJ	QJ	QK	QK	QL	QL	QM	QM	QN	QN	QO	QO	QP	QP	QQ	QQ	QR	QR	QS	QS	QT	QT	QU	QU	QV	QV	QW	QW	QX	QX	QY	QY	QZ	QZ	RA	RA	RB	RB	RC	RC	RD	RD	RE	RE	RF	RF	RG	RG	RH	RH	RI	RI	RJ	RJ	RK	RK	RL	RL	RM	RM	RN	RN	RO	RO	RP	RP	RQ	RQ	RS	RS	RT	RT	RU	RU	RV	RV	RW	RW	RX	RX	RY	RY	RZ	RZ	SA	SA	SB	SB	SC	SC	SD	SD	SE	SE	SF	SF	SG	SG	SH	SH	SI	SI	SJ	SJ	SK	SK	SL	SL	SM	SM	SN	SN	SO	SO	SP	SP	SQ	SQ	SR	SR	SS	SS	ST	ST	SU	SU	SV	SV	SW	SW	SX	SX	SY	SY	SZ	SZ	TA	TA	TB	TB	TC	TC	TD	TD	TE	TE	TF	TF	TG	TG	TH	TH	TI	TI	TJ	TJ	TK	TK	TL	TL	TM	TM	TN	TN	TO	TO	TP	TP	TQ	TQ	TR	TR	TS	TS	TT	TT	TU	TU	TV	TV	TW	TW	TX	TX	TY	TY	TZ	TZ	UA	UA	UB	UB	UC	UC	UD	UD	UE	UE	UF	UF	UG	UG	UH	UH	UI	UI	UJ	UJ	UK	UK	UL	UL	UM	UM	UN	UN	UO	UO	UP	UP	UQ	UQ	UR	UR	US	US	UT	UT	UU	UU	UV	UV	UW	UW	UX	UX	UY	UY	UZ	UZ	VA	VA	VB	VB	VC	VC	VD	VD	VE	VE	VF	VF	VG	VG	VH	VH	VI	VI	VJ	VJ	VK	VK	VL	VL	VM	VM	VN	VN	VO	VO	VP	VP	VQ	VQ	VR	VR	VS	VS	VT	VT	VU	VU	VV	VV	VW	VW	VX	VX	VY	VY	VZ	VZ	WA	WA	WB	WB	WC	WC	WD	WD	WE	WE	WF	WF	WG	WG	WH	WH	WI	WI	WJ	WJ	WK	WK	WL	WL	WM	WM	WN	WN	WO	WO	WP	WP	WQ	WQ	WR	WR	WS	WS	WT	WT	WU	WU	WV	WV	WW	WW	WX	WX	WY	WY	WZ	WZ	XA	XA	XB	XB	XC	XC	XD	XD	XE	XE	XF	XF	XG	XG	XH	XH	XI	XI	XJ	XJ	XK	XK	XL	XL	XM	XM	XN	XN	XO	XO	XP	XP	XQ	XQ	XR	XR	XS	XS	XT	XT	XU	XU	XV	XV	XW	XW	XX	XX	XY	XY	XZ	XZ	YA	YA	YB	YB	YC	YC	YD	YD	YE	YE	YF	YF	YG	YG	YH	YH	YI	YI	YJ	YJ	YK	YK	YL	YL	YM	YM	YN	YN	YO	YO	YP	YP	YQ	YQ	YR	YR	YS	YS	YT	YT	YU	YU	YV	YV	YW	YW	YX	YX	YZ	YZ	ZA	ZA	ZB	ZB	ZC	ZC	ZD	ZD	ZE	ZE	ZF	ZF	ZG	ZG	ZH	ZH	ZI	ZI	ZJ	ZJ	ZK	ZK	ZL	ZL	ZM	ZM	ZN	ZN	ZO	ZO	ZP	ZP	ZQ	ZQ	ZR	ZR	ZS	ZS	ZT	ZT	ZU	ZU	ZV	ZV	ZW	ZW	ZX	ZX	ZY	ZY	ZZ	ZZ
--	---	---	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Table N-1 (Cont.)

City	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O1	O2	O3	O4	O5	O6	O7	
LA 20. Lemoore NAS, CA	362	372	427	490	538	629	629	629	727	592	664	711	783	650	656	760	518	581	691	808	832	921	937
LA 21. Camp Pendleton, CA	515	541	547	622	769	739	810	878	840	774	828	858	921	784	784	928	697	745	821	994	1081	1117	1192
LA 22. Los Angeles, CA	638	648	671	719	779	853	911	968	1051	902	933	1037	1044	936	958	1028	841	906	968	1114	1212	1247	1300
LA 23. Naval Air Station, AFB, CA	496	496	565	556	637	709	765	814	871	662	702	788	805	697	697	811	612	635	722	875	941	967	984
LA 24. Naval Air Station, AFB, CA	613	613	637	677	804	848	929	992	1009	941	1042	1068	1171	984	1003	1096	849	917	1060	1163	1236	1322	1346
LA 25. Naval Air Station, AFB, CA	396	396	426	426	496	549	581	701	778	551	588	691	691	605	605	680	491	561	594	749	840	858	909
LA 26. Naval Air Station, AFB, CA	373	373	382	426	494	581	628	700	788	585	624	718	739	630	633	717	508	567	645	782	897	914	977
LA 27. Naval Air Station, AFB, CA	410	420	434	477	519	605	691	763	836	635	669	775	786	686	700	769	561	646	712	839	938	977	1042
LA 28. Naval Air Station, AFB, CA	467	472	497	536	583	653	720	768	820	682	730	812	843	704	711	798	603	649	731	888	1025	1074	1113
LA 29. Naval Air Station, AFB, CA	513	513	517	547	602	687	732	847	883	724	817	862	910	757	785	850	640	695	797	949	972	1045	1064
LA 30. Naval Air Station, AFB, CA	437	437	444	438	489	552	740	783	842	657	732	785	852	680	724	837	551	601	749	841	991	1054	1073
LA 31. Naval Air Station, AFB, CA	432	432	442	436	489	556	733	733	847	635	728	779	837	675	701	802	544	610	716	864	943	982	1000
LA 32. Naval Air Station, AFB, CA	476	506	537	595	683	743	828	844	883	724	817	862	910	757	785	850	640	695	797	949	972	1045	1064
LA 33. Naval Air Station, AFB, CA	625	637	645	686	754	856	939	992	1021	908	1006	1132	1148	999	1009	1127	909	946	1058	1244	1370	1422	1476
LA 34. Naval Air Station, AFB, CA	514	535	530	575	646	730	795	838	868	639	866	935	978	845	891	963	741	765	898	1095	1200	1304	1368
LA 35. Naval Air Station, AFB, CA	577	572	565	633	712	778	896	938	1012	657	1010	1010	1087	899	945	1045	761	810	931	1147	1169	1296	1359
LA 36. Naval Air Station, AFB, CA	430	430	437	484	553	620	693	761	836	676	722	816	839	729	738	827	600	667	756	917	1011	1033	1071
LA 37. Naval Air Station, AFB, CA	511	514	525	582	635	717	780	831	846	722	762	808	873	753	753	823	635	706	778	906	977	1030	1116
LA 38. Naval Air Station, AFB, CA	474	479	480	489	559	649	704	735	783	601	656	722	775	661	672	761	534	584	697	814	903	906	923
LA 39. Naval Air Station, AFB, CA	511	511	529	598	684	747	841	1026	1086	1001	1105	1160	1215	1043	1110	1175	922	976	1088	1296	1369	1452	1479
LA 40. Naval Air Station, AFB, CA	437	437	438	471	523	628	701	750	795	637	710	764	832	694	700	794	565	621	722	876	956	946	984
LA 41. Naval Air Station, AFB, CA	477	477	474	448	535	578	636	677	722	613	670	731	788	662	680	761	546	612	719	811	904	925	944
LA 42. Naval Air Station, AFB, CA	307	317	345	416	501	551	600	649	649	558	597	644	702	631	631	693	513	584	674	722	782	798	845
LA 43. Naval Air Station, AFB, CA	302	302	317	341	406	453	501	531	583	493	551	551	618	550	550	621	430	492	577	649	748	764	812
LA 44. Naval Air Station, AFB, CA	335	335	351	373	489	511	597	629	670	535	577	612	677	601	604	658	493	544	614	700	776	782	848
LA 45. Naval Air Station, AFB, CA	302	302	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
LA 46. Naval Air Station, AFB, CA	511	504	518	567	636	727	793	799	846	731	782	874	934	767	822	896	654	701	898	973	1128	1128	1149
LA 47. Naval Air Station, AFB, CA	535	535	543	605	671	790	814	861	929	821	873	978	1047	865	926	1006	727	817	922	1082	1203	1218	1243

Table N-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	C1	O2	O3	O4	O5	O6	C7
CT051	New Haven Fairfield, CT	567	569	579	644	726	782	832	886	964	955	1040	1129	1204	1014	1083	1154	965	959	1074	1244	1386	1425	1431
DC053	Washington DC Metro Area	619	614	625	695	780	842	916	937	1017	925	996	1049	1076	911	971	1042	839	874	992	1107	1193	1197	1247
DE054	Dover AFB DE	388	388	406	456	508	534	613	697	773	610	648	700	761	622	640	720	531	563	660	780	861	861	877
DE055	Rehoboth Beach DE	360	360	370	418	478	551	608	689	759	513	656	710	773	636	656	726	520	562	663	800	873	873	889
FL056	Edwin AFB FL	343	333	352	396	448	488	537	585	611	509	545	611	672	539	576	646	463	494	613	741	818	886	912
FL057	Gainesville FL	335	335	348	367	447	518	567	615	677	540	608	667	708	596	619	680	465	554	640	762	849	865	867
FL058	Jacksonville FL	400	395	413	449	508	571	623	675	721	604	679	722	750	662	665	767	543	608	689	834	913	942	942
FL059	Patrick AFB FL	398	398	400	451	493	550	611	651	726	592	617	697	738	590	641	721	496	576	696	815	921	931	944
FL060	Miami FL	500	500	513	568	610	664	680	770	834	752	799	876	961	782	811	927	683	727	858	999	1233	1233	1255
FL061	Fort Lauderdale FL	559	559	571	604	662	740	804	850	902	821	870	946	1014	852	882	983	758	821	917	1093	1166	1221	1243
FL062	Orlando FL	448	441	454	477	545	604	665	705	760	648	656	748	813	641	701	793	558	643	725	843	997	997	1015
FL063	Panama City FL	303	303	317	361	422	462	520	593	593	496	527	597	658	512	560	656	437	501	615	708	861	883	894
FL064	Pensacola FL	316	316	338	369	424	450	511	545	560	467	519	574	624	499	521	605	430	459	569	649	764	908	914
FL065	Pensacola FL	358	340	362	398	458	505	559	623	655	563	601	676	743	604	626	728	499	576	669	779	902	933	942
FL066	Tampa FL	403	403	417	457	524	579	630	695	746	631	664	754	830	619	688	786	558	573	735	868	1000	1021	1022
FL067	West Palm Beach FL	486	486	499	553	594	681	705	775	837	738	780	849	925	772	792	898	670	740	836	986	1094	1114	1114
FL068	Asheville NC	350	350	367	393	469	511	541	616	683	562	600	669	714	589	623	634	472	550	639	779	867	867	871
FL069	Key West FL	695	695	712	769	780	903	928	966	1022	941	994	1058	1105	975	1017	1095	806	931	1061	1152	1252	1262	1333
FL070	Volusia County FL	375	375	390	419	470	540	581	632	708	565	602	665	696	590	613	682	479	550	620	763	844	844	859
FL078	Avon Park Sebring FL	323	323	330	361	446	482	564	608	674	538	568	648	709	534	592	686	443	512	623	760	877	898	903
FL097	Polk County FL	318	318	318	372	409	482	536	593	669	518	546	622	678	509	571	658	424	490	590	733	846	867	871
GA071	Atlanta GA	444	444	463	490	542	597	654	686	710	640	646	734	773	653	653	731	565	634	696	806	921	937	973
GA072	Auburn GA	302	302	317	341	392	436	472	508	551	422	484	527	574	481	521	577	410	459	537	649	736	764	847
GA073	Fort Gordon GA	343	337	351	388	448	490	504	580	612	492	541	603	647	555	555	605	491	504	585	658	786	850	859
GA074	Kings Bay Brunswick GA	353	353	364	406	475	542	578	641	664	542	624	675	732	636	653	694	532	574	661	775	902	912	972
GA075	Fort Benning GA	300	300	347	374	422	459	497	565	621	505	539	583	642	521	541	629	480	484	556	661	775	796	849
GA076	Robins AFB GA	311	311	327	366	410	465	495	517	600	474	497	559	609	483	521	587	410	459	537	649	736	764	847
GA077	Savannah GA	375	375	400	411	484	525	574	621	653	516	550	652	690	533	633	674	547	570	670	747	837	843	891
GA078	Athens GA	304	304	342	375	416	495	572	609	633	560	590	659	715	586	586	693	442	553	635	757	841	871	887

Table N-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
GA079	Dalhousie, GA	332	332	332	374	432	490	534	586	624	506	531	603	651	545	545	528	417	496	567	676	751	771	848
GA080	Fort Stewart, GA	338	338	357	398	439	487	524	585	622	485	513	573	634	551	578	615	511	517	581	702	786	791	848
GA081	Moody AFB, GA	302	302	317	341	392	467	503	546	600	453	505	556	601	500	521	579	410	459	537	649	726	764	848
HI408	Honolulu County, HI	746	776	789	840	906	999	1058	1152	1172	942	1068	1166	1166	1076	1110	1237	995	1055	1124	1309	1352	1360	1402
HI409	Hawaii County, HI	545	550	564	621	689	716	799	870	930	793	845	951	951	850	866	989	760	824	908	1062	1116	1116	1163
IA082	Des Moines, IA	339	339	352	391	470	507	560	626	655	531	585	647	696	582	595	672	468	530	643	717	807	807	848
IA083	Ames, IA	302	302	317	341	394	436	482	554	592	460	511	570	612	501	521	590	410	459	537	649	736	764	848
ID084	Boise, ID	304	304	317	349	419	490	555	589	627	490	545	629	682	555	572	652	434	494	594	720	839	834	849
ID085	Kaho Falls, ID	302	302	317	341	392	436	478	538	583	440	502	563	621	496	521	592	410	459	547	652	745	764	849
ID086	Mountain Home AFB, ID	302	302	317	341	392	436	472	517	563	419	484	527	576	481	521	577	410	459	537	649	736	764	848
ID087	Pocatello, ID	302	302	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
ID333	Moscow, ID/Pullman, WA	302	302	317	341	392	436	493	540	605	445	498	564	616	510	521	595	410	459	537	657	759	777	848
IL088	Chanute AFB, IL	302	302	317	341	392	436	472	508	551	457	496	555	615	506	521	600	410	459	539	649	746	766	848
IL089	Rock Island, IL	302	302	317	341	392	448	474	542	592	440	489	540	601	492	521	582	410	459	537	649	736	764	848
IL090	Peoria, IL	302	302	317	341	392	439	485	551	603	482	517	582	642	527	535	618	410	467	565	658	763	788	848
IL092	Great Lakes NAVTRACEN, IL	450	448	476	534	569	624	691	730	820	758	805	882	883	795	812	885	688	770	839	999	1238	1238	1251
IL093	Scott AFB, IL	374	374	381	403	481	519	574	647	627	586	625	694	757	642	642	771	517	554	652	790	890	953	970
IL325	Chicago, IL	460	460	495	532	629	700	731	755	831	741	777	841	888	795	795	887	651	730	823	957	1120	1135	1170
IL335	Springfield-Decatur, IL	322	322	327	358	413	461	522	573	617	515	540	614	694	564	564	666	436	485	605	706	820	840	855
IL363	Winnebago, IL	302	302	317	341	392	480	521	579	660	517	548	629	640	565	566	645	436	513	592	727	824	862	928
IL366	Joliet, Army Depot, IL	338	338	355	400	482	547	547	657	719	562	599	673	693	615	615	702	485	559	637	770	874	911	928
IN094	Indianapolis-Fort Harrison, IN	357	357	359	393	452	506	568	586	659	545	600	645	716	599	611	686	498	539	614	726	839	853	858
IN095	Grisson AFB, IN	302	302	317	341	392	436	485	508	568	419	484	527	574	481	521	577	410	459	537	649	736	764	848
IN096	Lafayette, IN	335	335	339	387	449	491	546	600	656	481	538	583	644	539	539	625	423	473	543	649	740	764	848
IN097	Fort Wayne, IN	350	350	350	377	465	492	540	583	639	533	592	638	705	588	593	678	482	531	622	730	822	834	849
IN099	South Bend, IN	302	302	317	341	392	436	472	519	569	455	506	565	597	518	521	586	410	459	537	659	747	791	848
IN337	Evansville, IN	302	302	317	341	392	436	486	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
IN338	Terre Haute, IN	302	302	317	341	392	436	472	508	551	456	493	557	592	501	521	581	410	459	537	649	737	764	848
IN367	Gary, IN	327	327	341	385	426	510	544	601	674	529	576	637	673	594	594	669	464	532	613	710	824	884	904

Table N-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
IN399	Stonington, IN	361	361	361	389	461	491	558	568	635	513	549	619	639	555	569	638	456	505	566	697	782	792	848
KS100	Fort Riley, KS	302	302	317	341	362	436	493	526	573	484	529	579	645	495	521	587	431	459	537	649	706	764	848
KS101	Wichita/McConnell AFB, KS	341	341	348	390	436	483	563	563	606	574	621	700	762	613	622	716	493	568	700	817	889	917	934
KS102	Fort Leavenworth, KS	334	334	337	362	426	488	537	576	619	505	562	624	695	547	564	667	455	501	595	675	757	778	848
KS104	Lawrence, KS	364	364	362	403	470	539	586	630	658	567	620	687	751	603	616	712	521	561	653	740	831	849	870
KS105	Topeka, KS	324	324	333	370	416	453	502	561	590	511	555	622	685	537	547	640	462	501	591	671	754	764	848
KY106	Fort Campbell, KY	303	303	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	706	764	848
KY107	Lexington, KY	327	327	327	345	426	480	525	509	628	520	545	608	659	560	573	627	448	499	589	715	736	809	848
KY109	Louisville, KY	302	302	317	341	392	436	472	537	568	510	540	614	664	545	577	631	428	506	587	728	809	846	849
KY110	Fort Knox, KY	302	302	317	341	392	436	472	508	555	419	484	527	574	481	521	577	410	459	537	649	706	764	848
LA-13	England AFB, LA	302	302	317	341	392	436	472	526	576	441	484	549	624	506	521	584	423	459	537	654	750	759	848
LA114	Baton Rouge, LA	334	334	335	393	441	505	546	609	654	504	555	619	652	540	558	645	451	508	584	697	800	818	848
LA115	Fort Polk, LA	302	302	317	341	392	436	490	522	595	419	484	527	583	481	521	577	410	459	537	649	706	764	848
LA116	New Orleans, LA	343	343	363	392	455	504	558	603	608	535	590	672	672	555	590	662	464	527	593	698	817	872	897
LA117	Shreveport/Barksdale AFB, LA	321	321	334	370	426	480	500	525	574	496	536	606	672	542	542	658	444	511	599	685	782	819	848
LA118	Lafayette, LA	327	327	329	361	411	467	565	591	645	481	538	608	669	546	546	650	452	501	588	725	823	860	848
LA326	St Mary and Terrebonne, LA	302	302	317	342	409	448	509	569	603	469	511	569	604	493	521	598	410	460	541	649	748	764	848
LA370	Lake Charles, LA	333	333	333	392	434	464	539	587	649	496	544	616	691	554	554	658	473	518	616	737	823	854	848
LA371	Monroe, LA	302	302	317	350	398	445	511	550	594	474	533	597	665	534	534	635	422	490	584	698	792	818	848
MA120	Boston, MA	587	587	596	645	672	724	870	913	982	969	1019	1145	1210	1004	1063	1194	863	915	1082	1353	1430	1490	1518
MA121	Cape Cod, MA	479	479	493	568	628	657	786	802	850	689	715	818	858	718	755	838	598	676	760	899	999	1003	1031
MA122	Worcester, MA	512	512	526	587	614	726	845	851	916	807	846	960	1017	844	896	998	704	795	907	1093	1211	1219	1263
MA123	Fort Devens/Ayer, MA	513	513	528	573	675	750	806	806	914	832	875	977	1033	867	924	1029	743	806	912	1081	1266	1266	1299
MA124	Brockton S. Weymouth, MA	614	614	627	688	749	861	895	992	1014	940	983	1101	1154	980	1034	1139	853	932	1076	1200	1347	1347	1392
MA125	Essex Co. MA	558	558	575	622	682	783	831	870	935	831	863	971	1019	860	912	1001	739	816	921	1088	1246	1246	1291
MA126	Hampden County, MA	422	422	433	500	545	649	738	787	838	664	707	816	881	704	749	835	560	649	740	929	1038	1050	1071
MA377	Hanscomb AFB, MA	632	632	649	700	788	823	943	989	1038	889	927	1043	1091	925	996	1061	775	868	906	1166	1307	1307	1340
MD127	Aberdeen Proving Grounds, MD	390	390	390	435	525	571	647	650	782	646	698	753	816	665	685	772	570	596	699	809	890	915	915
MD128	Annapolis, MD	567	567	596	652	699	742	835	920	979	819	862	924	984	841	868	940	738	774	867	1046	1090	1107	1127

Table N-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
MD129	Baltimore, MD	492	492	510	569	642	699	747	825	878	805	865	891	968	828	853	923	713	758	856	884	1064	1095	1114
MD130	Fort Detrick, MD	505	505	510	546	603	666	768	800	857	705	747	807	857	722	748	834	632	655	751	869	948	980	998
MD131	Fort Riche, MD	337	337	337	393	443	502	610	656	739	531	581	630	689	553	578	648	456	488	567	697	784	785	648
MD133	Fort G. G. Meade, MD	577	577	583	674	730	766	831	880	909	830	874	934	984	843	876	940	760	800	903	1004	1059	1092	1112
MD134	Indian Head NAVORDSTA, MD	596	596	606	625	770	832	864	917	974	770	812	860	911	794	813	855	722	754	813	925	979	1008	1025
MD135	Patuxent River, MD	514	514	528	574	644	715	753	793	874	761	819	857	925	817	828	900	703	743	829	940	1031	1048	1067
ME136	Brunswick, ME	450	450	472	521	569	636	709	710	792	693	761	803	870	730	777	838	620	707	740	902	989	1003	1021
ME137	Loring AFB, ME	312	312	328	371	427	490	532	592	645	457	504	561	613	508	521	606	410	459	537	664	740	764	848
ME139	Portland, ME	468	468	489	531	588	677	713	776	820	712	761	837	903	749	784	870	634	714	782	963	1060	1068	1093
ME140	Bar Harbor, ME	353	353	365	393	467	511	576	617	666	569	639	685	739	606	641	718	507	572	659	774	857	861	877
ME390	Bangor, ME	395	395	400	441	516	546	618	666	719	607	676	722	775	646	680	754	548	611	696	819	897	904	920
MI142	Detroit, MI	404	404	414	419	491	529	557	636	718	703	764	852	921	747	784	903	621	694	804	1042	1114	1131	1163
MI143	K I Sawyer AFB, MI	302	302	317	341	394	467	561	588	650	492	546	611	668	545	557	642	417	471	591	694	803	820	848
MI145	Sault Ste Marie, MI	302	302	317	341	392	436	472	524	585	420	484	529	584	481	521	577	410	459	537	649	736	764	848
MI146	Traverse City, MI	385	385	391	460	503	559	614	673	726	611	673	733	788	672	675	760	548	612	704	839	954	954	988
MI148	Muskegon, MI	303	303	317	358	411	458	521	582	649	514	568	634	670	568	569	652	445	513	599	733	828	858	873
MI149	Port Huron, MI	344	344	359	400	455	508	567	620	693	572	623	695	764	616	637	726	497	559	660	802	898	925	946
MI150	Wurtsmith AFB, MI	302	302	317	345	392	484	486	555	611	431	484	533	589	487	521	577	410	459	537	649	736	764	848
MI152	Battle Creek/Kalamazoo, MI	320	320	327	367	428	484	536	589	640	538	603	664	747	588	598	692	463	532	636	748	862	887	938
MI153	Lansing, MI	326	326	343	383	460	504	537	606	650	511	557	624	687	550	560	632	444	502	596	702	791	806	848
MI154	Grand Rapids, MI	358	358	370	398	481	538	589	630	684	574	633	697	756	629	630	723	508	577	670	798	902	932	956
MI155	Ann Arbor, MI	496	496	508	556	617	662	714	764	828	699	747	823	882	737	760	834	633	699	796	899	1019	1029	1048
MI156	Saginaw, MI	319	319	333	351	423	457	528	581	628	521	565	633	692	566	568	648	447	508	595	722	809	821	848
M341	Flint, MI	353	353	353	383	444	499	554	615	669	555	604	678	739	603	612	697	481	543	639	773	865	883	913
MN158	Duluth, MN	302	302	317	341	392	436	473	542	603	474	533	588	653	525	525	621	410	465	562	692	781	798	848
MN159	Minneapolis/St. Paul, MN	456	456	457	482	568	636	693	748	775	742	742	809	887	746	762	845	629	702	767	963	1037	1037	1056
MO160	Kansas City, MO	371	371	375	409	454	511	609	621	644	555	618	678	751	611	634	713	507	557	653	752	863	868	889
MO161	St. Louis, MO	404	404	411	420	483	540	582	625	661	590	637	694	752	642	642	745	526	565	721	773	858	960	977
MO162	Whiteman AFB, MO	302	302	317	341	392	436	481	545	580	419	484	535	583	481	521	577	410	459	537	649	736	764	848

Table N-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
MO163	Fort Leonard Wood, MO	302	302	317	341	392	436	472	528	570	419	484	527	574	481	521	577	410	459	537	549	736	764	848
MO164	Springfield, MO	302	302	317	341	395	451	506	557	608	458	511	577	625	514	534	601	410	460	544	655	738	764	848
MO165	Columbia/Jefferson City, MO	303	303	317	341	393	454	491	555	590	446	505	567	620	510	521	597	410	459	537	649	736	764	848
MS168	Gulfport, MS	302	302	317	341	392	436	478	529	572	443	507	576	606	481	521	577	410	459	537	649	746	764	848
MS169	Columbus AFB, MS	302	302	317	341	392	453	485	526	595	478	502	559	603	484	521	581	410	459	537	649	747	764	848
MS170	Jackson, MS	318	318	324	349	430	478	517	572	626	495	521	576	635	514	532	603	418	466	550	649	749	764	848
MS171	Mendham, MS	302	302	317	341	392	436	488	538	599	453	484	539	598	481	521	577	410	459	537	649	736	764	848
MS172	Hattiesburg, MS	302	302	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
MT175	Manistrom AFB, Great Falls, MT	302	302	317	341	392	436	495	536	582	419	484	527	574	481	521	577	410	459	537	649	736	764	848
NC177	Morehead/Cherry Pt, MCAS, NC	319	319	333	375	425	469	500	565	565	521	521	561	642	542	542	592	456	492	569	696	748	771	848
NC178	Camp Lejeune, NC	320	320	331	368	417	465	502	524	551	542	542	607	669	544	544	585	492	547	579	670	788	788	848
NC179	Charlotte, NC	341	341	353	394	485	502	506	575	651	536	556	608	673	571	571	639	481	541	600	704	791	816	848
NC180	Durham/Chapel Hill, NC	367	367	378	419	474	524	564	604	663	600	618	688	756	634	646	709	546	600	669	772	882	894	910
NC181	Elizabeth City, NC	329	329	338	382	437	478	531	579	635	547	581	623	673	603	609	652	464	517	603	718	797	806	848
NC182	Fort Bragg/Pope AFB, NC	354	343	356	384	440	480	505	564	600	543	532	577	663	541	541	589	477	511	557	649	736	764	848
NC183	Seymour Johnson AFB, NC	318	318	334	372	427	491	523	539	581	536	536	591	657	561	561	603	479	532	571	653	766	766	848
NC184	Greensboro, NC	350	350	362	387	423	467	559	594	648	580	605	672	740	619	619	693	519	573	669	768	880	909	931
NC185	Raleigh, NC	442	442	455	497	593	597	680	690	742	649	656	715	787	689	689	746	602	650	705	794	911	911	927
NC186	Wilmington, NC	357	357	363	389	454	493	534	589	670	602	602	661	733	631	638	687	543	592	671	759	857	864	900
ND188	Bismarck, ND	302	302	317	341	392	436	473	508	551	423	484	534	585	481	521	577	410	459	537	643	736	764	848
ND189	Fargo, ND	326	326	331	363	458	470	560	588	644	511	561	621	670	541	566	649	442	497	585	709	793	798	848
ND190	Grand Forks, ND	302	302	317	341	392	436	475	528	565	483	537	601	654	521	542	633	411	459	537	711	790	811	848
ND191	Minot AFB, ND	302	302	317	367	392	436	472	508	551	419	484	532	588	481	521	577	410	459	537	649	736	764	848
NE192	Omaha/Offutt AFB, NE	340	340	359	413	487	551	612	645	654	541	600	655	709	576	584	693	459	540	653	728	799	896	949
NE193	Lincoln, NE	307	307	317	353	440	494	550	576	649	482	529	584	645	509	537	619	413	472	577	562	736	764	848
NH194	Portsmouth, NH/Kittery, ME	457	457	478	540	591	666	720	780	833	686	732	817	874	715	732	835	585	661	764	960	1051	1051	1072
NH195	Manchester/Concord, NH	470	470	487	522	624	670	719	806	853	733	767	873	927	767	812	907	638	721	807	1011	1114	1114	1142
NU196	Atlantic City, NJ	508	508	532	566	584	689	756	799	861	725	765	826	880	777	758	810	653	670	781	916	994	961	979
NU198	Cape May, NJ	444	444	460	518	578	627	740	748	822	655	679	734	796	629	680	751	563	594	702	807	884	884	900

Table N-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
NJ200	Fort Monmouth/Earls NWS, NJ	577	579	589	634	691	771	896	901	967	913	985	1041	1126	963	985	1079	836	875	1008	1150	1264	1268	1291
NJ201	Perth Amherst, NJ	576	579	591	635	683	728	869	891	943	909	977	1036	1115	956	990	1082	832	893	1017	1153	1295	1295	1319
NJ202	Northern New Jersey	552	554	573	632	698	713	777	851	915	839	902	964	1046	891	908	996	753	807	897	1078	1201	1202	1224
NJ203	Trenton, NJ	551	554	570	605	670	752	826	864	923	810	858	928	1005	855	878	963	731	798	904	1030	1141	1147	1168
NJ204	Fort Dix/McGuire/Lakehurst, NJ	442	442	467	522	626	665	687	818	841	712	763	828	902	757	759	845	630	675	763	900	1007	1007	1076
NM205	Holloman AFB/Alamogordo, NM	302	302	317	341	392	436	472	536	560	419	484	543	607	481	521	577	410	459	537	649	736	736	848
NM206	Albuquerque/Kirtland AFB, NM	349	349	362	411	498	545	603	634	726	550	578	635	683	578	591	652	460	490	582	687	803	812	848
NM207	Canon AFB/Clovis, NM	302	302	317	341	392	436	472	534	589	462	512	577	635	502	521	619	410	459	572	682	771	790	848
NM208	Gallop, NM	302	302	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	736	848
NM209	White Sands MRL/Las Cruces, NM	303	303	317	341	392	437	509	543	588	467	520	606	681	512	544	632	448	490	581	708	797	826	861
NM210	Santa Fe/Los Alamos, NM	380	380	390	420	495	573	620	678	734	615	648	704	756	643	658	726	518	576	686	793	876	876	894
NY211	Fallon NAS, NV	400	400	413	466	529	555	620	678	730	606	662	726	792	660	678	770	547	610	700	822	931	931	953
NY212	Nellis AFB/Las Vegas, NV	465	465	491	523	572	642	699	720	777	654	715	775	832	712	712	791	582	630	776	870	1041	1041	1060
NY213	Carson City, NV	475	475	491	533	603	665	709	752	812	670	732	797	862	726	745	834	603	680	783	879	990	1003	1021
NY215	Ballston Spa/Albany, NY	426	426	439	484	538	624	664	758	785	558	651	732	803	674	693	797	523	613	717	799	926	955	972
NY216	Buffalo, NY	313	313	319	390	418	442	477	582	643	542	583	667	719	587	587	691	466	538	643	765	862	881	897
NY217	West Point, NY	565	568	576	613	688	758	835	904	956	858	928	1006	1089	928	959	1036	782	860	995	1091	1246	1252	1274
NY218	Long Island, NY	542	546	553	631	717	759	835	835	942	847	911	985	1059	898	944	1016	781	846	966	1076	1190	1211	1235
NY219	New York City, NY	542	546	553	631	717	759	835	835	942	847	911	985	1059	898	944	1016	781	846	966	1076	1190	1211	1235
NY220	Plattsburgh, NY	363	363	370	420	494	482	549	643	696	541	599	650	722	602	610	690	483	530	646	755	840	858	879
NY221	Rochester, NY	386	386	390	442	522	569	612	679	725	560	620	721	763	650	660	729	533	577	694	799	893	903	919
NY222	Rome/Griess AFB, NY	350	350	357	418	472	523	597	628	727	454	567	665	719	593	593	706	472	519	608	716	791	813	848
NY223	Seneca Army Depot/Syracuse, NY	352	352	352	416	468	500	582	647	721	582	699	802	879	732	732	854	568	639	804	912	1024	1054	1065
NY225	Fort Drum/Watertown, NY	337	337	345	402	453	490	565	595	674	470	558	647	703	579	579	662	482	496	588	702	799	818	846
NY226	Binghamton/Ithaca, NY	372	372	379	412	486	547	631	636	699	536	633	724	780	667	667	752	525	585	690	798	891	905	921
NY349	Westchester County, NY	625	631	641	683	754	839	916	984	1045	989	1054	1138	1230	1057	1094	1183	911	991	1162	1274	1424	1466	1570
NY395	Jonestown, NY	302	302	317	341	392	448	499	563	623	489	526	604	656	538	540	628	410	484	575	705	783	798	848
OH227	Akron, OH	347	347	349	398	453	505	531	597	675	558	619	663	727	603	630	694	489	556	629	779	886	911	927
OH228	Cincinnati, OH	336	336	341	361	489	516	594	617	646	505	527	580	624	546	562	604	449	493	563	651	751	764	848



Table N-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
OH229	Cleveland, OH	403	403	411	436	487	541	592	703	757	636	695	755	827	677	714	792	571	636	723	888	1007	1046	1065
OH230	Columbus, OH	358	358	358	372	455	511	558	619	654	537	576	635	704	579	591	663	471	512	638	745	864	864	890
OH231	Wright Patterson AFB, OH	358	378	368	395	472	499	565	638	654	543	575	638	704	598	600	683	491	525	623	746	821	852	877
OH232	Toledo, OH	335	335	340	358	449	469	522	593	656	531	576	648	708	568	591	671	460	521	605	749	842	855	871
OH233	Youngstown, OH	302	302	317	341	392	466	492	533	631	464	507	555	616	510	521	591	410	459	537	655	755	768	848
OH382	Marshall, OH	302	302	317	341	392	436	477	523	600	457	496	560	631	497	521	597	410	459	544	673	780	805	849
OK235	Altus AFB, OK	302	302	317	341	392	436	472	508	551	440	490	544	590	481	521	577	410	459	537	649	736	764	848
OK236	Vance AFB, End, OK	302	302	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
OK237	Fort Sill, Lawton, OK	302	302	317	341	392	436	472	508	551	438	484	535	584	481	521	577	410	459	537	649	736	764	848
OK239	Oklahoma City, OK	307	307	317	341	392	436	472	508	551	444	488	538	601	488	521	583	410	459	541	649	736	764	848
OK240	Tulsa, OK	304	304	317	347	443	476	513	549	607	476	501	578	625	516	528	604	410	466	544	658	744	764	848
OR241	Astoria, OR	302	302	317	341	403	475	514	577	634	514	593	637	673	563	597	666	456	512	622	735	813	813	848
OR242	Coos Bay, OR	304	304	317	348	426	481	550	585	636	477	531	596	657	517	542	641	410	459	577	678	775	777	848
OR243	Portland, OR	371	371	383	428	497	532	633	650	684	564	629	675	714	609	638	691	503	568	646	759	878	878	924
OR244	Salem, OR	347	347	348	398	448	502	565	612	650	532	581	623	675	573	603	662	464	529	608	709	737	806	848
OR245	Corvallis, OR	340	348	351	381	459	521	579	623	666	494	544	586	639	527	560	627	420	491	556	674	756	764	848
OR246	Eugene, OR	311	311	323	360	420	519	543	584	628	509	561	617	671	544	578	657	443	506	597	709	793	819	848
PA247	Carlisle Barracks, PA	354	354	365	389	471	527	576	639	741	557	605	653	723	574	606	650	475	520	625	755	800	810	848
PA248	Philadelphia, PA/Camden, NJ	480	483	499	523	581	654	749	829	892	797	828	900	978	820	829	912	682	720	893	1009	1082	1119	1124
PA249	NAS Willow Grove, PA	550	550	559	619	696	759	822	914	945	879	919	987	1056	904	917	1058	773	828	970	1089	1229	1229	1251
PA250	Pittsburgh, PA	305	305	317	361	439	464	530	530	635	528	575	615	674	584	584	620	466	523	603	696	809	814	848
PA251	Reading, PA	383	383	398	434	515	576	615	699	787	665	702	763	827	688	698	784	565	619	721	854	929	929	948
PA252	State College, PA	364	364	368	397	463	508	585	639	704	554	625	664	712	609	609	696	488	555	629	758	854	841	841
PA253	Erie, PA	302	302	317	341	396	452	512	550	625	435	535	604	655	539	559	636	427	496	580	705	806	814	848
PA254	Wings Barre, Scranton, PA	302	302	317	341	392	436	472	560	645	506	574	628	705	563	570	667	419	486	599	727	849	810	848
PA255	Allentown, Bethlehem, PA	435	435	449	481	541	624	709	749	819	701	750	818	887	742	762	854	615	679	791	932	1023	1023	1051
PA380	Letterman Army Depot, PA	307	307	317	341	399	462	540	604	685	518	564	620	681	541	562	639	439	479	581	690	748	764	848
PA383	Johnstown, PA	302	302	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	740	764	848
RI256	Newport, RI	528	528	547	588	678	770	853	853	925	757	800	906	945	764	841	940	662	736	815	1010	1112	1112	1112

Table N-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
FL257	Providence, RI	440	440	453	499	576	665	729	729	817	698	764	844	895	729	788	890	601	668	760	946	1063	1072	1112
SC258	Beaufort/Parris Island, SC	371	371	378	416	465	509	571	604	640	501	548	590	644	592	592	630	507	550	581	701	791	793	848
SC259	Charleston, SC	372	361	374	401	460	506	545	617	669	538	608	648	710	654	654	660	533	568	646	792	879	879	974
SC260	Columbia/Fort Jackson, SC	363	363	371	408	459	515	521	623	639	556	610	667	707	626	626	668	520	556	638	735	880	935	957
SC261	Greenville, SC	306	306	317	347	406	456	487	585	620	516	566	622	680	555	555	660	447	515	618	730	841	880	896
SC262	Myrtle Beach AFB, SC	364	364	377	413	454	523	544	601	644	566	573	630	692	619	619	642	507	546	596	736	833	833	849
SC263	Sumter/Shaw AFB, SC	316	316	330	369	421	477	532	559	591	481	513	552	608	528	528	577	430	463	537	665	736	766	848
SD264	Rapid City/Elsworth AFB SD	302	302	320	359	417	462	481	582	627	502	534	588	651	533	537	625	432	496	564	698	798	891	848
SD265	Sioux Falls, SD	331	331	333	367	444	517	536	599	639	535	585	644	699	586	597	672	467	529	615	744	826	826	848
TN266	Chattanooga, TN	311	311	320	377	421	490	516	579	621	508	550	618	655	556	556	645	443	506	585	678	772	796	848
TN267	Knoxville, TN	302	302	317	341	392	454	472	542	600	469	528	589	636	525	536	616	410	475	575	668	767	786	848
TN268	Memphis, TN	324	324	337	365	426	460	519	566	599	506	575	597	655	547	585	637	442	495	598	660	807	845	850
TN269	Nashville, TN	351	351	356	392	465	519	570	611	621	492	528	606	654	545	545	639	473	516	593	666	781	817	848
TN353	Johnson City/Kingsport, TN	302	302	317	341	392	436	485	533	565	436	486	548	599	496	521	577	410	459	537	649	736	764	848
TN354	Marchesler/Tulahoma, TN	302	312	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
TX270	Arlene/Dyess AFB, TX	305	305	328	366	413	466	526	580	609	500	551	616	683	543	557	660	421	465	616	688	827	827	948
TX271	Amarillo, TX	302	302	317	341	392	436	483	544	587	450	498	563	618	493	521	593	410	459	537	654	745	754	9
TX272	Austin/Bergstrom AFB, TX	354	354	364	412	488	544	589	642	659	534	573	652	718	591	591	730	492	538	662	765	864	922	949
TX273	Beaumont, TX	333	333	333	366	431	495	552	581	649	474	512	591	656	548	548	628	446	492	585	687	783	818	848
TX274	College Station, TX	351	351	362	406	457	543	576	629	683	518	556	629	694	570	570	667	484	536	618	747	855	881	897
TX275	Corpus Christi, TX	349	349	359	394	455	530	569	636	680	538	593	673	726	553	610	700	454	500	660	738	879	901	918
TX276	Kingsville, TX	329	329	329	367	447	511	558	606	671	497	553	625	672	517	562	652	418	459	580	750	822	835	851
TX277	Dallas, TX	410	410	443	479	545	599	654	696	739	606	651	715	791	675	676	746	565	630	743	808	908	935	952
TX278	Laughlin AFB/Del Rio, TX	302	302	317	341	411	470	514	577	626	442	489	546	597	481	521	577	410	459	537	649	742	764	848
TX279	El Paso, TX	318	318	334	361	400	454	506	508	551	451	484	571	670	499	533	617	457	476	551	655	774	851	897
TX280	Galveston, TX	381	381	391	413	480	532	581	660	722	607	667	734	774	679	679	763	537	615	704	805	940	978	946
TX281	Brownsville, TX	310	310	320	357	418	472	546	615	661	505	555	627	676	535	572	656	426	484	566	711	824	844	859
TX282	Houston, TX	383	383	385	446	514	589	617	683	738	578	635	724	738	651	656	744	503	569	679	737	914	949	966
TX283	Lubbock/Reese AFB, TX	305	305	317	341	403	459	503	554	606	509	554	616	669	543	563	651	455	526	591	711	810	820	846

N-1:

Table N-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
TX264	Goodfellow AFB, TX	302	302	317	345	402	459	488	553	606	487	542	608	670	524	552	656	410	466	605	687	792	813	848
TX285	San Antonio, TX	333	328	335	384	450	504	537	573	611	501	554	663	728	589	569	678	435	494	611	730	794	809	848
TX286	Fort Hood, TX	302	302	317	341	408	461	485	555	599	453	484	552	600	501	521	583	442	477	537	671	736	764	848
TX287	Texas, TX	326	326	339	377	448	500	535	580	626	526	576	644	696	579	579	667	451	531	623	724	813	817	848
TX288	Wichita Falls/Sheppard AFB, TX	313	313	330	366	422	453	517	555	575	508	557	610	659	536	562	625	444	494	596	672	751	807	848
TX289	Beville, TX	302	302	317	341	392	441	495	568	610	456	505	584	628	505	521	610	410	459	558	682	773	773	848
TX356	Fort Worth, TX	377	377	394	431	500	567	621	639	696	548	598	666	727	607	607	702	521	554	658	786	863	865	881
UT291	Ogden/Hill AFB, UT	302	302	317	347	405	436	500	556	570	443	491	549	592	482	521	577	410	459	537	649	736	764	848
UT292	Salt Lake City, UT	308	308	317	351	423	448	506	545	591	472	523	579	628	515	541	594	410	461	570	649	736	764	848
UT357	Provo, UT	302	302	317	341	392	436	472	508	551	421	484	537	588	481	521	577	410	459	537	649	736	764	848
VA295	Charlottesville, VA	368	368	369	421	476	538	644	679	735	604	661	707	763	619	655	724	530	575	665	764	862	862	878
VA296	Quantico/Woodbridge, VA	494	494	510	572	644	720	787	794	846	788	858	916	952	788	834	910	718	739	843	955	1047	1074	1093
VA297	Hampton/Newport news, VA	386	381	385	441	501	577	633	666	691	621	664	723	740	674	685	741	538	586	698	796	873	880	896
VA298	Norfolk/Portsmouth, VA	421	412	428	478	537	598	652	668	726	673	758	730	793	730	731	778	585	623	728	832	949	978	996
VA300	Petersburg/Fort Lee, VA	341	341	353	405	457	530	576	603	673	552	611	641	694	612	620	667	474	515	585	738	823	831	848
VA301	Richmond, VA	372	372	385	435	496	555	624	641	723	583	642	673	729	641	651	683	503	563	617	776	845	861	877
VA302	Warrenton/Vent Hill Farm, VA	587	587	599	651	728	801	802	889	959	833	865	921	983	845	877	933	763	797	865	1000	1106	1106	1126
VA303	Lexington, VA	302	302	317	341	398	454	516	575	625	499	552	607	644	540	553	624	426	481	575	670	757	768	848
VA304	Wallops Island, VA	338	338	342	384	467	513	571	625	677	593	648	687	748	658	663	739	506	558	660	796	869	880	919
VA362	Roanoke, VA	302	302	317	341	395	436	495	541	596	466	519	579	627	512	526	598	410	461	551	657	753	768	848
VA368	Camp A.P. Hill, VA	437	437	445	489	577	607	679	726	766	629	678	725	780	670	684	732	575	598	670	757	879	881	897
VT305	Burlington, VT	450	450	464	497	529	649	679	733	793	653	708	759	834	713	724	800	589	651	747	868	972	987	1005
WA306	Bremerton, WA	408	412	428	462	533	614	668	694	796	613	683	742	782	674	714	747	565	635	727	836	957	886	902
WA307	Everett, WA	482	482	496	554	624	597	742	757	828	682	773	816	859	747	775	835	632	709	783	870	967	967	945
WA308	Port Angeles, WA	302	302	317	341	392	463	522	572	638	467	535	597	633	530	545	612	410	489	553	665	736	764	848
WA309	Seattle, WA	463	463	481	493	601	669	707	723	792	700	778	836	897	770	799	858	620	738	855	902	1050	1050	1064
WA310	Spokane, WA	302	302	317	355	425	451	527	547	625	451	500	562	612	508	521	587	410	462	537	649	772	772	848
WA311	Tacoma, WA	356	356	366	407	475	545	594	645	681	580	665	725	740	634	668	741	517	564	671	781	834	890	946
WA312	Whidbey Island, WA	414	414	430	474	551	628	669	718	811	614	596	751	769	677	689	756	568	637	714	799	859	875	891

Table N-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
WA313	Yakima, WA	324	324	337	384	430	492	555	592	635	520	587	650	689	571	590	665	454	519	616	718	797	812	848
WA315	Abandon, WA	302	302	317	341	392	490	536	591	635	471	544	594	638	527	555	616	410	474	560	663	741	764	848
WI316	Madison, WI	362	362	379	431	512	551	598	649	729	603	637	706	740	652	655	733	528	597	693	797	896	929	945
WI317	Milwaukee, WI	370	370	389	426	485	544	681	714	731	590	620	683	687	618	618	686	506	581	662	761	885	922	929
WI318	Sparta/Fort McCoy, WI	306	306	317	345	414	449	502	547	609	449	490	552	599	491	521	577	410	459	537	649	736	764	848
WI319	Oshkosh/Appleton, WI	305	305	317	348	422	464	503	565	620	496	538	590	642	533	546	624	420	480	561	684	763	766	848
WI358	Green Bay, WI	302	302	317	341	413	436	509	559	612	480	534	598	644	528	538	621	410	467	555	690	775	776	848
WI359	Stevenspoint, WI	324	324	328	372	444	476	553	607	664	539	595	662	716	591	605	688	464	529	628	752	847	860	889
WV320	Morgantown, WV	302	302	317	341	392	436	472	508	571	423	484	527	574	481	521	577	410	459	537	649	736	764	848
WV321	Sugar Grove, WV	302	302	317	341	392	436	472	508	551	427	484	527	575	481	521	577	410	459	537	649	736	764	848
WV322	Huntington, WV	313	313	317	341	442	471	525	574	633	500	533	594	648	533	553	615	420	484	558	685	758	773	848
WV323	Charleston, WV	308	308	317	345	410	458	500	546	612	508	554	616	665	549	571	629	435	496	585	696	789	796	848
WV360	Beckley, WV	302	302	317	341	392	436	472	513	577	456	506	566	610	501	521	579	410	459	537	649	736	764	848
WY324	Cheyenne, WY	302	302	317	341	392	445	478	540	605	453	489	529	580	516	521	577	425	459	537	649	736	764	848
ZZ530	County Cost Group	302	302	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
ZZ540	County Cost Group	302	302	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
ZZ550	County Cost Group	302	302	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
ZZ560	County Cost Group	302	302	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
ZZ570	County Cost Group	302	302	317	341	392	436	472	508	551	424	484	527	574	481	521	577	410	459	537	649	736	764	848
ZZ580	County Cost Group	302	302	317	341	392	436	472	508	551	428	484	527	574	481	521	577	410	459	537	649	736	764	848
ZZ590	County Cost Group	302	302	317	341	392	436	472	508	551	432	484	527	574	481	521	577	410	459	537	649	736	764	848
ZZ600	County Cost Group	302	302	317	341	392	436	472	508	551	440	484	527	574	481	521	577	410	459	537	649	736	764	848
ZZ610	County Cost Group	303	303	317	341	392	436	472	508	551	445	484	530	574	481	521	577	410	459	537	649	736	764	848
ZZ620	County Cost Group	306	306	317	341	392	436	472	508	551	453	484	540	581	491	521	577	410	459	537	649	736	764	848
ZZ630	County Cost Group	307	307	317	341	392	436	478	518	551	461	490	551	592	495	521	584	410	459	537	649	736	764	848
ZZ640	County Cost Group	311	311	317	341	398	442	487	528	562	465	500	567	604	505	521	590	411	459	537	649	736	764	848
ZZ650	County Cost Group	317	317	317	346	406	455	496	539	573	474	509	577	615	515	521	601	419	459	537	649	736	764	848
ZZ660	County Cost Group	322	322	322	356	414	464	511	549	584	482	519	588	632	514	519	613	423	469	546	651	736	774	848
ZZ670	County Cost Group	329	329	329	363	426	473	520	559	595	495	534	604	644	514	540	624	431	482	567	677	769	805	848
ZZ680	County Cost Group	362	362	381	414	468	547	599	615	642	537	604	644	684	514	540	624	431	482	567	677	769	805	848



Table N-2. 1992 Housing Allowance Rates: Without-Dependents

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
AK400	Ketchikan, AK	400	451	538	548	585	636	692	754	795	698	756	836	963	725	787	900	563	794	856	978	1008	1009	1009
AK401	Sitka, AK	348	397	500	526	582	638	719	804	869	694	843	951	1061	776	861	1029	658	798	969	1121	1125	1166	1166
AK402	Juneau, AK	387	441	546	574	637	729	772	846	901	725	855	965	1072	797	881	1046	700	816	984	1097	1110	1147	1147
AK403	Kodiak Island, AK	491	562	690	728	798	848	897	968	1038	828	952	1050	1164	890	971	1124	796	927	1082	1191	1191	1192	1192
AK404	Anchorage, AK	333	374	469	509	595	640	710	814	871	652	775	885	984	723	794	936	598	725	918	1052	1062	1077	1077
AK405	Fairbanks, AK	313	350	440	488	556	600	655	731	799	600	751	838	915	669	729	850	547	653	827	949	949	978	978
AL001	Anniston/Fort McClellan, AL	169	190	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
AL002	Fort Rucker, AL	169	190	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
AL003	Huntsville, AL	169	191	234	240	283	297	336	400	468	377	430	457	558	408	442	528	323	383	495	600	661	707	707
AL004	Mobile, AL	169	190	234	257	283	302	339	408	446	371	432	500	578	382	443	532	310	373	479	564	654	689	689
AL005	Montgomery, AL	192	216	265	269	308	335	362	407	454	375	407	477	563	380	421	503	336	376	498	579	622	667	689
AL006	Auburn, AL	174	195	234	238	274	326	349	408	439	352	383	453	538	362	415	497	306	359	455	564	609	632	689
AL007	Birmingham, AL	180	202	242	243	309	329	366	429	484	407	454	526	590	428	469	560	353	410	533	617	692	720	720
AL008	Tuscaloosa, AL	169	190	234	247	276	306	362	420	460	385	425	502	578	394	449	543	323	381	505	600	667	696	720
AR009	Byrnesville AFB, AR	169	190	234	238	274	297	343	409	456	349	404	460	547	374	426	512	302	359	459	576	614	648	689
AR010	Little Rock, AR	172	194	238	249	290	320	351	415	455	374	430	484	571	391	446	535	313	373	503	582	654	689	689
AR011	Pine Bluff, AR	169	190	234	250	285	315	370	439	488	375	434	492	579	401	445	545	311	376	490	621	652	684	720
AR012	Fort Chaffee/Fort Smith, AR	169	190	234	238	274	297	329	384	429	323	380	428	509	357	415	488	302	359	452	564	609	632	689
AZ013	Phoenix, AZ	211	238	294	311	360	388	440	527	553	475	520	595	719	471	506	723	389	438	632	725	836	768	768
AZ014	Fort Huachuca, AZ	170	191	234	244	292	310	366	428	448	356	403	458	551	357	415	501	302	359	454	564	609	632	689
AZ015	Davis-Monthan AFB, AZ	18	205	255	266	312	345	358	410	471	413	454	535	633	405	446	554	326	379	540	620	733	734	734
AZ016	Yuma, AZ	241	271	332	343	376	416	458	524	579	472	520	594	712	494	542	656	405	465	603	720	763	763	763
AZ017	Navajo County, AZ	169	190	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
CA018	Oakland, CA	342	385	461	461	527	565	645	721	749	702	782	877	1032	748	804	995	614	702	941	991	1081	1159	1159
CA019	San Francisco, CA	371	418	499	510	586	594	660	786	842	792	897	968	1148	899	888	1081	683	755	962	1276	1276	1276	1276
CA020	Casale AFB, CA	214	241	290	307	364	413	458	536	621	433	510	572	680	456	500	623	360	417	541	651	675	734	734
CA021	China Lake NAVWEP/EN, CA	186	208	255	271	295	352	407	486	537	401	455	548	616	442	475	574	345	422	519	651	699	713	713
CA022	Fresno, CA	222	250	301	31	361	397	449	537	579	453	526	580	690	481	530	627	386	458	573	710	736	736	736

Table N-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
CA023	Lemoore NAS, CA	202	228	274	298	348	366	437	476	552	450	521	578	694	482	523	643	382	454	581	702	738	762	762
CA024	Camp Pendleton, CA	299	341	402	421	467	502	563	664	638	588	649	697	817	582	625	786	514	583	681	74	894	925	969
CA025	Ventura, CA	357	408	494	502	544	580	633	732	758	685	732	843	926	685	764	870	620	708	815	969	1003	1032	1057
CA026	Vandenberg AFB, CA	277	312	372	388	444	482	531	616	661	503	551	640	714	517	555	687	451	497	608	759	778	800	800
CA027	Marina Sonoma, CA	343	386	464	473	561	577	646	750	766	715	817	868	1008	700	800	927	626	717	883	1011	1022	1094	1094
CA028	Bastow/Fort Irwin, CA	221	249	299	323	346	373	403	531	553	418	461	561	613	449	483	575	362	438	500	651	625	710	739
CA029	George AFB, CA	208	235	282	311	348	385	436	530	598	445	490	584	656	467	504	607	375	443	543	679	742	756	734
CA030	Edwards AFB, CA	235	264	320	326	376	412	480	578	635	483	525	629	697	509	558	651	414	505	600	740	776	809	847
CA031	San Bernardino, CA	258	292	354	367	407	444	500	581	622	518	573	660	747	522	567	675	445	508	615	772	848	839	945
CA032	Twentynine Palms MCB, CA	170	191	234	242	281	318	370	414	514	384	437	508	578	305	415	533	306	362	457	610	673	682	732
CA033	Beale AFB, CA	190	214	256	282	354	380	475	528	568	425	496	554	666	436	499	614	319	405	557	658	718	735	735
CA034	Sacramento, CA	244	275	327	355	411	443	514	593	639	499	574	638	755	505	577	709	406	470	630	731	820	872	872
CA035	Stockton, CA	242	272	325	346	411	446	509	555	643	485	571	633	742	500	558	679	431	477	603	751	780	813	813
CA036	Valep/Travis AFB, CA	294	331	395	415	477	506	576	639	670	550	611	701	807	562	626	719	472	544	671	825	854	865	865
CA037	Los Angeles, CA	349	401	475	479	526	589	652	750	775	758	812	920	1018	742	804	953	670	740	890	1082	1153	1177	1200
CA038	San Diego, CA	287	331	390	402	451	497	552	634	658	638	679	760	867	627	710	840	546	614	756	942	1017	1080	1110
CA039	Monterey, CA	323	360	431	442	497	529	623	711	768	651	732	821	963	667	754	884	561	634	784	997	967	1014	1014
CA040	Bakersfield, CA	240	271	322	338	386	424	481	576	634	514	567	663	744	511	538	700	442	522	636	797	837	855	855
CA041	Riverside, CA	286	323	386	406	443	488	542	629	642	549	598	681	774	558	600	636	458	554	655	790	878	882	882
CA042	Humboldt County, CA	234	264	324	341	390	442	489	556	594	457	514	586	688	430	535	644	193	407	587	707	747	750	750
CA044	Santa Clara County, CA	382	442	522	557	617	644	723	776	824	761	867	942	1078	778	885	994	680	764	916	1126	1132	1212	1212
CA042	Santa Clara County, CA	244	275	322	329	372	413	487	567	603	484	557	621	737	515	558	672	116	486	591	763	791	830	830
CA042	Santa Clara County, CA	233	260	312	313	373	383	442	512	548	466	526	594	699	491	542	644	403	478	606	705	749	768	768
CA042	Santa Clara County, CA	185	208	254	280	349	375	417	491	492	424	468	523	622	468	503	587	378	457	568	628	647	660	660
CA042	Santa Clara County, CA	169	190	234	238	283	308	348	402	442	375	432	448	548	408	438	525	317	377	486	564	619	632	632
CA042	Santa Clara County, CA	187	211	258	261	341	347	408	476	508	407	452	498	600	446	481	557	364	425	517	608	642	647	647
CA042	Santa Clara County, CA	163	190	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	605	632	632
CA042	Santa Clara County, CA	265	317	381	386	444	485	551	605	642	556	613	710	828	569	655	757	482	548	680	846	933	934	934
CA042	Santa Clara County, CA	299	337	400	422	468	531	565	652	705	624	684	795	928	642	739	851	536	639	776	941	995	1008	1008

Table N-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
CT051	New Haven/Fairfield, CT	318	358	426	450	507	532	578	670	732	726	816	918	1067	752	863	977	638	750	904	1061	1146	1163	1163
DC053	Washington, DC Metro Area	346	387	460	485	530	573	636	709	771	703	781	863	954	676	774	882	618	684	835	962	987	990	1014
DE054	Dover AFB, DE	217	245	290	318	364	363	426	528	587	463	508	569	675	462	510	609	392	441	555	678	712	713	713
DE055	Rehoboth Beach, DE	201	226	273	292	333	375	423	521	576	466	515	577	686	472	523	615	384	439	558	696	722	722	722
FL056	Eglin AFB, FL	192	210	259	277	312	332	373	443	463	387	427	496	586	400	459	547	341	386	507	644	677	733	733
FL057	Gainesville, FL	187	211	256	266	312	352	394	465	514	410	477	542	628	442	493	575	343	433	539	662	702	716	716
FL058	Jacksonville, FL	223	248	304	314	354	398	433	510	547	459	532	587	665	491	530	649	405	476	580	725	760	780	780
FL059	Patrick AFB, FL	223	251	285	315	344	374	425	492	551	456	484	567	654	438	511	610	366	451	586	709	762	771	771
FL060	Miami, FL	280	315	378	397	426	452	473	583	633	571	626	712	852	580	647	784	503	549	722	868	1020	1021	1021
FL061	Fort Lauderdale, FL	312	352	420	422	462	503	558	643	685	624	682	769	899	632	704	832	559	642	772	950	983	1011	1011
FL062	Orlando, FL	250	277	334	333	380	411	462	534	577	492	515	608	721	476	560	671	412	503	610	773	824	825	825
FL063	Panama City, FL	169	191	234	252	294	314	362	449	450	377	413	485	584	380	447	555	322	362	518	616	663	731	731
FL064	Pensacola, FL	177	199	249	257	296	306	355	412	425	355	407	467	553	370	415	512	317	359	479	564	632	751	751
FL065	Tallahassee, FL	200	225	266	278	320	341	388	472	497	428	472	549	659	448	499	616	368	451	563	677	746	772	772
FL066	Tampa, FL	226	254	307	326	366	394	438	526	566	480	521	612	736	459	549	665	411	448	619	755	827	845	845
FL067	West Palm Beach, FL	272	306	367	386	415	464	490	586	635	561	612	680	820	573	631	751	494	579	704	857	905	922	943
FL068	Astoria, FL	196	221	263	274	327	348	376	456	519	427	470	544	633	437	497	587	348	430	538	677	717	719	719
FL069	Key West, FL	308	437	524	537	544	614	645	731	775	715	780	860	980	723	811	926	560	729	873	1001	1035	1061	1061
FL070	Volusia County, FL	210	236	287	292	328	367	404	478	538	430	472	540	617	438	489	577	353	430	522	663	698	699	699
FL072	Avon Park/Sebring, FL	181	203	243	252	311	328	392	460	511	409	446	527	629	396	472	581	327	401	525	666	725	735	735
FL073	Polk County, FL	178	200	234	260	296	328	372	448	507	394	428	506	602	378	455	557	312	384	497	637	700	718	718
GA071	Atlanta, GA	246	280	341	342	378	406	454	519	538	487	507	597	686	484	521	618	415	496	586	701	762	742	742
GA072	Albany, GA	169	190	234	238	274	297	328	384	418	321	380	428	511	367	415	488	302	359	452	564	609	632	669
GA073	Fort Gordon, GA	192	212	258	271	313	333	350	439	464	374	424	490	574	412	443	510	362	394	493	572	651	704	704
GA074	Kings Bay/Brunswick, GA	197	222	268	283	331	369	402	485	504	412	490	548	649	472	521	587	392	449	556	673	745	746	746
GA075	Fort Benning, GA	185	208	255	261	294	312	345	42	472	385	423	482	569	387	432	515	354	379	467	575	541	651	651
GA076	Robins AFB, GA	174	196	241	255	286	316	344	401	455	360	390	454	540	366	415	497	302	359	452	564	609	632	669
GA077	Savannah, GA	210	236	294	287	338	357	399	470	495	392	431	530	611	469	505	570	404	446	513	650	693	698	724
GA078	Albany, GA	187	210	252	262	290	337	367	461	480	425	463	535	634	435	467	586	326	433	536	658	696	721	721



Table N-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
GA079	Danonega, GA	185	209	244	261	301	333	371	443	473	385	417	490	577	404	434	531	307	388	477	587	621	632	677
GA080	Fort Stewart, GA	189	213	263	278	307	332	364	444	472	369	403	466	562	439	461	520	376	404	489	610	650	655	663
GA081	Moody AFB, GA	169	190	234	238	274	317	349	413	455	344	396	452	532	371	415	470	302	359	452	564	600	632	675
HA086	Honolulu County, HI	417	488	581	587	632	679	735	872	889	747	838	948	1004	798	885	1,45	733	825	946	1137	1119	1125	1135
HA089	Hawaii County, HI	305	346	416	433	481	487	555	659	706	603	663	773	843	631	691	837	560	644	764	923	923	924	946
IA082	Des Moines, IA	190	214	259	273	328	345	389	473	497	404	459	525	617	432	474	563	345	414	541	673	668	668	685
IA083	Ames, IA	169	140	234	238	275	297	335	419	449	350	401	464	543	372	415	491	302	359	452	564	609	632	683
ID084	Boise, ID	170	192	234	244	292	333	385	446	476	373	427	511	605	412	456	552	320	386	500	626	669	680	690
ID085	Klato Falls, ID	169	190	234	238	274	297	332	407	442	335	394	457	550	368	415	501	292	359	460	567	616	632	683
ID086	Mountain Home AFB, ID	169	190	234	238	274	297	328	391	427	318	380	428	511	357	415	483	302	359	452	564	609	632	689
ID087	Pocatello, ID	169	190	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	684
ID333	Moscow, ID/Pullman, WA	169	190	234	238	274	297	342	409	459	338	391	458	546	378	415	503	302	359	452	571	628	643	689
LO88	Charlie AFB, IL	169	190	234	238	274	297	328	384	418	347	389	451	546	375	415	501	302	359	454	564	617	634	689
LO89	Rock Island, IL	169	190	234	238	275	305	329	410	449	334	383	438	533	365	415	493	302	359	452	564	609	632	689
LO90	Peoria, IL	169	190	234	238	274	299	337	417	457	366	406	473	569	391	426	521	302	365	476	572	631	652	683
LO92	Great Lakes NAVTRACEN, IL	252	282	350	373	397	424	480	552	623	576	631	717	783	590	647	740	507	592	707	869	1024	1025	1035
LO93	Scott AFB, IL	209	236	281	281	335	353	399	490	476	446	490	564	671	476	512	651	381	433	543	687	736	788	794
IL325	Chicago, IL	257	290	364	372	439	476	508	572	630	563	609	683	788	590	634	750	430	571	633	802	916	940	997
IL335	Springfield-Decatur, IL	180	203	241	250	288	314	362	434	468	382	424	499	615	418	449	564	321	379	509	614	676	695	711
IL363	Winnebago, IL	169	190	234	238	274	326	362	438	501	593	430	511	567	420	452	546	322	401	438	632	581	780	780
IL366	Joliet Army Depot, IL	189	213	261	279	336	372	380	497	546	427	470	547	615	456	490	594	358	437	537	669	713	754	754
IN094	Indianapolis Fort Harrison, IN	200	225	264	274	315	344	394	443	500	414	471	524	635	444	487	586	367	422	517	631	674	736	736
IN095	Grossom AFB, IN	169	190	234	238	274	297	337	384	431	318	380	428	509	357	415	408	302	359	452	564	609	632	684
IN096	Lafayette, IN	187	211	249	271	314	334	380	454	498	365	422	474	571	400	429	528	311	370	462	564	627	687	687
IN097	Fort Wayne, IN	196	221	258	263	324	335	375	443	485	405	455	519	625	436	472	574	355	416	524	639	687	734	734
IN099	South Bend, IN	169	190	234	238	274	297	328	392	447	346	397	459	529	365	415	496	302	359	452	572	616	654	654
IN337	Evansville, IN	169	190	234	238	274	297	337	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	684
IN338	Terre Haute, IN	169	190	234	238	274	297	328	384	418	347	387	452	525	372	415	452	302	359	452	564	610	632	684
IN367	Gary, IN	183	206	251	269	297	347	378	455	511	402	452	518	597	441	473	566	342	416	516	634	68	73	73

Table N-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
KS100	Bloomington, IN	202	227	266	272	321	334	387	445	482	390	431	503	567	412	454	540	336	395	477	606	647	656	683
KS100	Fort Riley, KS	169	190	234	238	274	297	342	398	435	368	415	470	572	387	415	496	318	359	452	564	609	632	689
KS101	Wichita/McConnell AFB, KS	191	215	257	272	304	329	391	426	460	436	487	569	676	455	496	606	363	444	589	710	735	759	759
KS102	Fort Leavenworth, KS	187	210	248	253	297	332	373	436	470	384	441	507	616	405	450	564	335	392	501	586	626	644	639
KS104	Lawrence, KS	203	229	281	281	328	367	407	477	500	431	486	558	666	447	491	602	364	439	550	643	687	703	708
KS105	Topoka, KS	181	204	245	259	290	308	349	425	448	389	435	505	607	398	436	542	340	392	498	583	624	632	689
KY106	Fort Campbell, KY	169	190	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
KY107	Lexington, KY	183	206	241	241	297	326	365	445	477	395	428	494	584	416	456	531	330	390	496	621	658	669	683
KY109	Louisville, KY	169	190	234	238	274	297	328	406	431	387	424	499	589	404	460	534	315	396	495	630	654	700	707
KY110	Fort Knox, KY	169	190	234	238	274	297	328	384	421	318	380	428	509	357	415	488	302	359	452	564	609	632	689
LA113	England AFB, LA	169	190	234	238	274	297	328	398	437	335	380	446	554	376	415	494	312	359	452	569	620	635	639
LA114	Baton Rouge, LA	187	211	246	275	318	343	380	461	496	383	435	503	578	401	445	545	332	397	491	606	662	677	689
LA115	Fort Polk, LA	169	190	234	274	297	341	395	451	486	318	380	428	517	357	415	488	302	359	452	564	609	632	689
LA116	New Orleans, LA	192	216	267	273	318	343	388	456	462	406	463	546	596	412	470	560	342	412	499	607	676	721	721
LA117	Shreveport/Barksdale AFB, LA	180	202	246	259	297	313	347	397	435	370	421	493	595	402	432	557	328	400	504	595	647	678	689
LA118	Lafayette, LA	183	206	242	252	287	318	393	447	489	366	422	494	593	405	436	550	333	392	495	630	680	712	716
LA326	St Mary and Terrebonne, LA	169	190	234	238	286	305	354	431	457	355	401	463	536	366	415	506	302	360	455	564	619	632	689
LA370	Lake Charles, LA	186	210	245	273	302	316	375	444	493	377	427	501	612	411	441	557	349	405	519	640	681	707	717
LA371	Monroe, LA	169	190	234	245	278	303	355	416	451	360	418	485	593	396	426	537	311	383	492	607	655	677	689
MA120	Boston, MA	328	369	439	450	469	492	605	691	745	736	799	931	1073	745	863	1010	636	716	820	1176	1233	1234	1234
MA121	Cape Cod, MA	268	301	363	410	438	447	546	607	645	523	561	665	761	533	602	709	441	529	640	782	826	830	838
MA122	Worcester, MA	286	322	387	410	428	494	537	644	695	613	664	780	901	626	715	845	519	622	764	941	1002	1009	1027
MA123	Fort Devens/Ayer, MA	287	323	389	400	471	510	581	633	694	633	687	794	916	643	737	871	548	632	768	940	1048	1048	1048
MA124	Brockton/S. Weymouth, MA	343	387	462	480	523	585	622	751	770	714	771	895	1023	727	824	964	679	729	906	1043	1114	1118	1124
MA125	Essex Co., MA	312	351	423	434	476	532	577	658	709	632	677	789	903	638	727	847	544	638	775	946	997	998	1006
MA126	Hampden County, MA	226	266	319	349	380	441	513	596	636	505	555	663	781	522	597	707	413	508	623	807	859	863	871
MA377	Hanscomb AFB, MA	353	398	478	489	550	560	655	748	788	676	727	848	967	686	794	915	572	679	838	1013	1061	1061	1061
MD127	Aberdeen Proving Grounds, MD	218	245	287	304	367	389	450	492	593	491	547	612	724	493	546	653	420	466	588	703	757	758	758
MD128	Annapolis, MD	317	357	431	456	488	505	580	696	743	622	676	751	873	624	692	796	544	605	730	910	961	961	961

Table N-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
MD129	Baltimore, MD	275	310	376	397	448	476	519	624	666	612	679	724	858	615	680	781	526	593	721	855	880	906	906
MD130	Fort Detrick, MD	282	318	376	381	421	453	534	605	650	536	586	656	760	535	597	706	466	520	632	758	784	811	811
MD131	Fort Riche, MD	188	212	248	275	309	342	424	486	561	404	456	512	611	410	461	548	336	382	511	606	643	650	643
MD133	Fort G. G. Meade, MD	323	363	429	471	509	521	578	666	713	631	685	759	872	625	638	796	560	626	761	872	376	904	904
MD134	Indian Head NAVORDSTA, MD	333	375	446	437	537	566	600	694	739	585	637	699	807	589	648	724	532	590	684	804	810	814	814
MD135	Patuxent River, MD	287	323	389	401	450	486	523	600	664	578	642	696	820	606	660	761	518	581	696	817	853	867	867
ME136	Brunswick, ME	251	283	347	364	397	433	492	537	601	527	597	652	771	542	619	709	457	553	623	784	819	830	830
ME137	Long AFB, ME	174	196	241	259	298	333	370	448	489	347	395	456	543	377	415	512	302	359	452	577	612	632	632
ME139	Portland, ME	252	235	360	371	410	450	495	587	622	541	597	680	801	556	625	736	467	559	659	837	877	814	814
ME140	Bar Harbor, ME	197	222	269	274	326	348	400	467	505	432	502	556	655	450	511	608	374	447	555	673	709	713	713
ME390	Bangor, ME	221	249	294	308	360	371	429	504	546	462	531	587	688	479	542	638	404	478	586	712	742	748	748
MI142	Detroit, MI	226	254	305	293	343	360	397	481	545	534	599	693	817	554	625	764	450	543	677	906	922	976	950
MI143	F. I. Sawyer AFB, MI	169	190	234	238	275	318	390	445	493	374	428	496	593	404	444	543	307	369	497	603	665	678	659
MI145	Sault Ste Marie, MI	169	190	234	238	274	297	328	396	444	319	380	430	518	357	415	488	302	359	452	564	609	632	632
MI146	Traverse City, MI	215	243	288	321	351	380	427	509	551	465	528	595	699	499	538	643	404	478	592	730	789	790	803
MI148	Muskegon, MI	170	191	234	250	287	311	362	440	493	381	445	515	594	421	454	552	328	401	504	637	685	710	710
MI149	Port Huron, MI	192	217	265	279	317	346	394	469	526	435	489	565	678	457	508	615	366	437	556	697	743	765	785
MI150	Wurtsmith AFB, MI	169	190	234	241	274	329	338	420	463	328	380	433	522	361	415	488	302	359	452	564	609	632	632
MI152	Battle Creek/Kalamazoo, MI	179	202	241	256	299	329	372	446	486	409	473	540	663	436	476	585	342	416	535	650	713	734	762
MI153	Lansing, MI	182	205	252	268	321	343	373	458	493	388	437	507	610	408	447	535	327	393	494	610	655	667	689
MI154	Grand Rapids, MI	200	225	272	278	336	367	409	477	519	436	496	566	670	467	503	612	375	451	564	693	747	771	777
MI155	Ann Arbor, MI	277	312	375	388	430	450	496	593	628	531	586	669	782	547	606	706	467	546	670	781	843	852	852
MI156	Saginaw, MI	178	201	245	245	295	311	367	440	476	396	443	514	613	420	453	548	330	397	501	628	663	679	679
MI341	Flint, MI	198	223	260	268	310	340	385	465	508	422	474	551	655	447	488	590	354	424	538	672	716	730	740
MI158	Duluth, MN	169	190	234	238	274	297	329	410	438	360	418	478	579	389	419	525	302	364	474	602	646	660	669
MN159	Minneapolis/St Paul, MN	255	287	336	336	396	433	481	566	598	564	582	657	766	554	607	715	463	549	646	807	856	856	856
MO160	Kansas City, MO	207	234	276	286	316	348	420	470	489	422	484	551	666	453	536	604	374	436	550	654	714	718	718
MO161	St Louis, MO	226	254	303	293	337	367	405	473	501	449	500	564	667	477	512	631	388	442	567	672	759	794	794
MO162	Whiteman AFB, MO	169	190	234	238	274	297	304	412	440	318	380	435	517	357	415	498	302	359	452	564	624	632	632

Table N-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	C/E	O/E	O3E	O1	O2	O3	O4	O5	O6	O7
MO163	Fort Leonard Wood, MO	169	190	234	238	274	297	328	399	433	318	380	428	509	367	415	488	302	359	452	564	609	632	689
MO164	Springfield, MO	169	190	234	238	276	307	351	421	461	348	401	469	554	382	426	509	302	360	458	569	611	632	689
MO165	Columbia/Jefferson City, MO	169	191	234	238	274	309	341	421	448	339	396	461	550	379	416	505	302	359	453	564	609	632	689
MS168	Gulfport, MS	169	190	234	238	274	297	332	400	434	337	397	468	537	357	415	488	302	359	452	564	617	632	689
MS169	Columbus AFB, MS	169	190	234	238	274	308	337	398	452	363	394	454	535	369	416	492	302	359	452	564	618	632	689
MS170	Jackson, MS	178	200	238	244	300	325	359	433	475	376	409	468	563	382	424	510	308	365	463	564	619	632	689
MS171	Mendham, MS	169	190	234	238	274	297	339	407	455	344	380	438	530	357	415	488	302	359	452	564	609	632	689
MS172	Hattiesburg, MS	169	190	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
MT175	Mainstrom AFB/Great FIs, MT	169	190	234	238	274	297	344	405	442	318	380	428	509	357	415	488	302	359	452	564	609	632	689
NC177	Morehead/Cherry Pt MCAS, NC	179	201	245	262	297	319	347	427	428	396	409	455	569	402	432	501	356	385	479	605	619	638	689
NC178	Camp Lejeune, NC	179	202	244	257	291	316	349	396	416	412	425	494	593	404	434	495	363	428	488	582	652	652	689
NC179	Charlotte, NC	190	214	260	275	339	341	352	435	494	408	436	494	597	424	455	541	355	423	505	612	654	677	689
NC180	Durham/Chapel Hill, NC	205	231	279	293	331	356	392	457	505	456	485	559	670	471	515	600	403	470	563	671	729	740	740
NC181	Elizabeth City, NC	184	207	249	266	305	325	369	438	482	415	456	506	597	447	486	552	342	404	507	624	659	667	689
NC182	Fort Bragg/Pope AFB, NC	196	216	262	268	307	326	351	427	455	413	417	469	588	401	431	499	352	399	469	564	609	632	689
NC183	Seymour Johnson AFB, NC	178	200	246	260	298	334	363	408	441	408	421	480	582	416	447	511	353	416	481	567	634	634	689
NC184	Greensboro, NC	196	221	267	270	295	318	368	450	492	441	475	546	656	459	493	586	383	448	563	668	728	752	757
NC185	Raleigh, NC	247	278	335	347	414	406	472	522	563	493	514	581	698	511	549	631	444	509	594	690	753	754	754
NC186	Wilmington, NC	200	225	267	272	317	335	371	446	471	458	472	537	650	468	509	581	400	463	565	660	709	732	732
ND188	Bismarck, ND	169	190	234	238	274	297	329	384	418	322	380	434	518	357	415	488	302	359	452	564	609	632	689
ND189	Fargo, ND	182	205	243	253	320	320	369	445	489	388	440	505	594	401	451	549	326	389	492	616	656	661	689
ND190	Grand Forks, ND	169	190	234	238	274	297	330	400	429	367	421	488	580	387	432	535	303	359	452	618	653	671	689
ND191	Minot AFB, ND	169	190	234	256	274	297	328	384	418	318	380	432	521	357	415	488	302	359	452	564	609	632	689
NE192	Omaha/Offutt AFB, NE	190	214	264	288	340	375	425	488	496	411	470	532	628	427	466	587	339	423	550	633	660	667	689
NE193	Lincoln, NE	172	193	234	247	307	336	382	436	432	366	415	474	572	377	428	524	305	369	486	576	609	632	689
NH194	Portsmouth, NH/Kittery ME	256	288	352	377	412	453	500	580	632	521	574	664	775	531	600	706	432	517	643	834	869	870	871
NH195	Manchester/Concord, NH	263	296	358	364	435	456	499	610	647	557	601	709	822	569	647	768	470	564	679	879	921	922	929
NJ196	Atlantic City, NJ	284	319	392	395	407	476	525	605	653	551	600	671	780	576	605	686	482	524	658	796	814	796	796
NJ198	Cape May, NJ	248	279	338	361	404	426	514	566	624	498	533	596	706	496	542	636	415	465	591	701	731	732	732

Table N-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
NJ200	Fort Monmouth/Fair NWS, NJ	323	364	434	443	482	524	623	682	734	694	773	846	988	715	785	913	616	684	848	1000	1045	1049	1049
NJ201	Perth Amboy, NJ	322	364	435	444	476	495	604	674	716	691	766	842	989	709	789	915	614	648	857	1003	1071	1072	1072
NJ202	Northam New Jersey	309	349	422	442	480	485	540	644	694	638	708	784	928	661	724	843	555	631	756	938	993	995	995
NJ203	Trenton, NJ	308	349	420	422	468	511	574	653	700	616	673	754	891	634	700	815	539	624	761	895	944	949	949
NJ204	Fort Dix/McGuire/Lakehurst, NJ	247	278	344	365	437	452	477	619	638	541	598	673	800	561	605	715	464	528	660	782	833	834	834
NM205	Holloman AFB/Alamogordo, NM	169	190	234	238	274	297	328	406	425	319	380	441	538	357	415	488	302	353	452	564	639	632	632
NM206	Albuquerque/Kirland AFB, NM	195	220	266	287	347	371	419	480	551	418	453	516	606	429	471	552	339	383	490	605	664	672	672
NM207	Cannon AFB/Crows, NM	169	190	234	238	274	297	328	404	447	351	401	469	563	373	415	523	302	359	481	593	638	654	654
NM208	Gallop, NM	169	190	234	238	274	297	328	384	418	318	380	428	509	357	415	468	302	359	452	564	639	632	632
NM209	White Sands MRL/Las Cruces, NM	170	191	234	238	274	297	354	410	446	355	408	433	604	380	434	535	331	383	489	616	659	684	684
NM210	Santa Fe/Los Alamos, NM	213	239	287	292	345	390	431	513	557	457	508	572	670	477	525	615	382	451	578	683	774	727	727
NV211	Fallon NAS, NV	223	252	304	325	369	377	431	513	554	460	519	530	702	489	540	651	424	477	530	715	770	774	774
NV212	Nellis AFB/Las Vegas, NV	260	293	362	366	399	436	486	545	589	497	560	630	737	518	568	669	429	493	653	757	867	862	862
NV213	Carson City, NV	266	299	362	372	421	452	492	569	616	510	574	648	755	538	594	706	445	532	659	764	819	830	830
NY215	Balticon Spa/Albany, NY	238	268	323	338	375	425	462	574	596	424	511	595	712	500	552	674	386	479	604	695	786	790	790
NY216	Buffalo, NY	175	197	235	272	292	301	332	441	488	412	457	542	637	436	468	585	344	421	542	665	713	729	729
NY217	West Point, NY	316	358	424	428	480	516	580	684	726	652	728	817	966	689	765	877	583	673	837	948	1031	1036	1036
NY218	Long Island, NY	303	344	407	441	500	516	580	632	715	644	714	800	939	667	753	860	575	662	814	936	984	1003	1003
NY219	New York City, NY	303	344	407	441	500	516	580	632	715	644	714	800	939	667	753	860	575	662	814	936	984	1003	1003
NY220	Plattsburgh, NY	203	229	272	293	345	328	382	486	528	411	470	528	640	446	486	583	356	415	544	656	695	710	710
NY221	Rochester, NY	216	243	287	309	364	387	425	514	550	418	486	586	677	483	519	617	393	451	584	695	733	747	747
NY222	Rome/Griess AFB, NY	195	220	263	292	329	356	415	475	551	345	445	541	637	440	473	587	348	406	512	622	655	678	678
NY223	Seneca Army Depot/Syracuse, NY	197	222	259	291	328	340	404	490	547	443	548	652	779	543	583	723	419	500	677	793	847	872	872
NY225	Fort Drum/Waterbury, NY	189	212	254	281	316	333	392	450	512	357	438	526	624	430	462	560	355	388	436	611	661	677	677
NY226	Binghamton/Tioga, NY	208	234	279	287	339	372	438	481	531	407	497	588	691	494	551	636	387	457	581	694	737	752	752
NY249	Westchester County, NY	349	398	472	477	526	571	637	744	793	752	826	925	1091	784	872	1001	672	775	978	1138	1178	1213	1213
NY395	Jamestown, NY	169	190	234	238	274	305	347	426	473	371	413	491	581	399	431	531	302	379	484	613	648	660	660
OH227	Akron, OH	194	219	257	278	316	343	369	452	512	424	486	539	645	447	502	587	360	435	500	617	713	754	754
OH228	Cincinnati, OH	188	212	251	252	341	351	413	457	490	384	413	471	553	405	448	511	331	386	474	566	621	672	672

Table N-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O1	O2	O3	O4	O5	O6	O7	
OH229	Cleveland, OH	225	254	303	304	340	368	411	532	575	483	545	613	733	502	569	670	421	498	609	772	833	866	866
OH230	Columbus, OH	200	225	265	260	317	348	367	468	496	408	452	516	624	429	472	561	348	401	537	648	715	715	715
OH231	Wright-Patterson AFB, OH	200	226	271	276	329	340	392	483	496	412	451	518	624	444	478	578	362	411	525	649	679	705	705
OH232	Toledo, OH	187	211	250	250	313	319	363	449	498	404	452	526	628	422	471	568	339	407	509	651	697	708	708
OH233	Youngstown, OH	169	190	234	238	274	317	342	403	475	353	397	451	546	379	415	500	302	359	452	570	624	635	649
OH382	Marshfield, OH	169	190	234	238	274	297	331	396	455	347	389	455	560	368	415	505	302	359	458	585	645	666	693
OK235	Altus AFB, OK	169	190	234	238	274	297	328	394	418	334	385	442	523	357	415	488	302	359	452	564	609	632	689
OK236	Vance AFB/End, OK	169	190	234	238	274	297	328	394	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
OK237	Fort Sill/Lawton, OK	169	190	234	238	274	297	328	394	418	333	380	431	518	357	415	488	302	359	452	564	609	632	689
OK239	Oklahoma City, OK	171	193	234	255	289	306	358	400	418	338	383	454	533	362	415	493	302	359	456	564	609	632	689
OK240	Tulsa, OK	170	192	234	242	309	324	357	415	461	362	393	469	555	383	421	511	302	365	458	572	615	632	685
OR241	Astoria, OR	169	190	234	238	281	323	357	436	481	391	465	518	597	418	476	564	336	400	524	609	672	673	689
OR242	Coos Bay, OR	170	191	234	243	297	327	382	442	483	362	416	484	582	383	432	542	302	359	486	590	641	643	651
OR243	Portland, OR	208	234	282	289	347	362	440	492	519	429	494	549	633	452	508	584	370	445	544	660	727	727	737
OR244	Salem, OR	194	218	256	278	313	342	390	453	494	404	456	506	598	425	481	561	342	414	512	617	659	667	679
OR245	Corvallis, OR	195	219	259	266	320	354	402	471	505	375	427	476	566	391	446	531	310	384	488	586	626	632	642
OR246	Eugene, OR	174	196	238	251	293	353	377	442	477	387	440	501	595	404	461	556	327	396	503	616	656	676	679
PA247	Carlisle Barracks, PA	198	223	269	272	328	358	401	484	562	424	474	530	641	426	483	550	350	407	526	657	682	671	679
PA248	Philadelphia, PA/Camden, NJ	268	304	367	365	405	445	521	627	677	606	649	731	867	608	661	772	503	563	752	877	895	926	935
PA249	NAS Willow Grove, PA	308	347	411	433	486	516	571	692	732	668	721	802	946	671	731	895	570	648	816	946	1016	1017	1017
PA250	Pittsburgh, PA	170	192	234	252	306	316	368	401	482	401	451	500	597	433	466	525	343	409	507	605	669	674	689
PA251	Reading, PA	220	247	293	303	359	392	428	529	597	506	550	620	734	511	556	664	417	484	607	742	763	769	773
PA252	State College, PA	203	229	271	277	323	346	406	483	534	421	475	540	631	452	485	589	360	434	500	659	690	676	676
PA253	Erie, PA	169	190	234	238	276	307	356	416	474	376	420	490	581	400	446	538	314	368	468	613	667	662	667
PA254	Wilkes-Barre/Scranton, PA	169	190	234	238	274	297	328	424	490	386	450	511	625	415	455	565	309	330	504	632	669	670	689
PA255	Allentown/Bethlehem, PA	243	274	331	336	377	424	493	567	621	533	588	664	795	550	607	723	453	551	666	810	851	854	854
PA260	Letterkenny Army Depot, PA	172	193	234	238	278	314	375	457	520	394	442	504	604	401	448	540	343	375	469	600	619	632	642
PA263	Johnstown, PA	169	190	234	238	274	277	328	394	418	318	380	428	519	357	415	488	302	359	452	564	609	632	642
RI256	Newport, RI	265	333	403	411	473	524	593	645	702	576	627	736	838	567	670	795	488	576	686	878	920	927	927

Table N-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
RI257	Providence, RI	246	277	332	348	402	453	507	552	620	530	599	686	794	541	628	753	443	521	640	823	880	887	904
SC258	Beaufort/Parris Island, SC	208	234	278	290	325	346	397	457	485	381	430	479	571	439	472	533	374	430	489	609	654	657	683
SC259	Charleston, SC	208	227	275	290	321	344	379	467	508	409	477	527	629	485	521	558	393	444	544	689	727	726	751
SC260	Columbia/Fort Jackson, SC	203	229	273	285	321	350	362	471	485	422	478	542	627	464	499	565	380	435	537	639	728	774	774
SC261	Greenville, SC	171	192	234	242	283	310	338	443	470	392	444	505	603	412	443	559	329	403	521	635	696	726	718
SC262	Myrtle Beach AFB, SC	103	229	278	288	317	356	378	455	489	431	449	512	614	459	490	543	374	427	502	639	689	690	630
SC263	Sumter/Shaw AFB, SC	177	199	243	258	294	325	369	423	449	365	403	443	539	392	421	488	317	362	452	578	609	634	623
SD264	Rapid City/Eisworth AFB, SD	169	190	236	251	291	314	334	440	476	381	419	478	577	395	428	529	319	368	475	606	660	663	663
SD265	Sioux Falls, SD	185	208	245	257	303	352	372	453	485	406	459	523	619	434	476	543	344	414	518	647	684	684	683
TN266	Chattanooga, TN	174	196	236	263	294	333	359	438	472	386	431	502	581	412	443	546	327	396	493	593	636	659	651
TN267	Knoxville, TN	169	190	234	238	274	309	328	410	456	357	414	478	564	390	427	521	302	371	484	580	634	650	663
TN268	Memphis, TN	181	204	248	255	297	313	361	428	454	385	451	495	581	406	467	539	326	388	504	574	568	639	674
TN269	Nashville, TN	196	221	262	273	325	353	396	463	471	374	414	492	580	404	434	541	343	403	479	579	640	670	671
TN353	Johnson City/Kingsport, TN	169	190	234	238	274	297	337	403	444	332	381	445	531	368	415	488	321	359	452	564	609	632	621
TN354	Manchester/Tulahoma, TN	169	190	234	238	274	297	337	403	444	332	381	445	531	368	415	488	321	359	452	564	609	632	621
TX270	Aberdeen/Dyess AFB, TX	170	192	231	255	286	317	366	439	462	380	432	501	605	403	444	506	310	346	452	563	604	634	631
TX271	El Paso, TX	169	190	234	238	274	297	336	412	445	342	391	457	548	346	415	501	303	363	452	563	604	634	631
TX272	Austin/Bergstrom AFB, TX	198	223	268	288	340	370	409	456	500	406	449	530	636	436	476	548	342	401	501	605	646	677	671
TX273	Beaumont, TX	186	210	245	256	301	337	384	440	483	360	402	480	581	407	437	530	339	385	493	597	648	677	671
TX274	College Station, TX	196	221	267	283	319	369	400	476	518	354	406	511	615	423	454	544	337	420	520	623	702	739	731
TX275	Corpus Christi, TX	196	220	264	275	318	360	395	461	516	479	465	547	644	411	446	540	335	391	504	641	727	746	731
TX276	Kingsville, TX	184	207	243	256	312	346	388	458	509	418	444	507	596	383	448	501	323	369	468	602	680	697	671
TX277	Dallas, TX	229	258	326	304	381	407	454	525	561	460	510	582	701	501	539	631	417	430	529	702	751	774	774
TX278	Laughlin AFB/Del Rio, TX	169	190	234	238	274	297	337	407	475	336	383	443	529	357	415	488	302	359	452	564	614	653	651
TX279	El Paso, TX	178	200	246	252	279	309	352	384	418	343	380	464	594	310	425	522	337	372	464	570	640	724	724
TX280	Galveston, TX	213	240	288	288	335	362	404	500	548	461	523	590	686	534	542	646	396	481	592	705	778	809	809
TX281	Brownsville, TX	173	195	236	243	291	321	380	465	501	383	435	509	600	397	456	555	314	376	464	565	681	746	640
TX282	Houston, TX	214	241	284	311	359	401	429	516	560	439	498	588	555	483	523	612	371	445	571	640	756	795	785
TX283	Lubbock/Reese AFB, TX	170	192	234	238	281	312	349	419	460	387	434	500	593	403	444	551	336	412	498	618	670	678	671

Table N-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O-E	G-E	O-E	U	U2	C3	D4	F
TX284	Goodwin AFB, TX	163	190	234	241	281	312	339	418	460	310	435	434	544	369	440	555	432	394	450	530	673
TX285	San Antonio TX	196	207	247	269	314	343	373	434	464	381	434	519	645	422	453	514	370	387	5	635	672
TX286	Fort Hood TX	169	190	234	238	265	314	344	420	454	344	360	445	532	372	415	433	316	370	452	530	652
TX287	Texasville TX	182	205	250	264	312	340	372	439	475	400	451	523	617	479	461	525	332	415	524	600	675
TX288	Wichita F's Sheppard AFB, TX	175	197	243	265	294	368	369	470	436	368	437	436	584	397	449	529	313	387	522	584	668
TX289	Beeville TX	169	190	234	238	274	300	344	430	463	346	396	475	557	375	415	516	332	354	472	533	643
TX356	Fort Worth TX	211	237	290	301	349	386	432	483	528	416	465	541	644	450	484	564	364	434	554	683	776
UT 91	Ogden Hill AFB, UT	169	190	234	242	283	297	348	420	433	337	385	446	524	358	415	488	322	353	452	564	629
UT292	Salt Lake City, UT	172	194	234	245	295	305	352	413	448	358	410	471	557	382	432	503	302	361	480	564	659
UT357	Provo UT	169	190	234	238	274	297	328	384	418	320	380	437	521	357	415	488	302	359	452	564	632
VA295	Charlottesville VA	206	232	272	284	332	366	447	514	557	459	518	575	676	459	522	613	391	450	560	664	714
VA296	Quantico Woodbridge VA	276	311	376	399	450	490	547	601	642	599	673	744	844	585	665	770	529	578	709	800	889
VA297	Hampton-Newport News, VA	216	240	291	308	349	392	440	504	525	472	521	588	656	500	546	627	397	458	568	682	728
VA298	Norfolk Portsmouth, VA	235	260	315	334	375	407	453	505	551	511	595	533	703	542	583	658	431	487	613	723	805
VA300	Petersburg Fort Lee, VA	190	214	260	283	319	360	400	456	511	419	479	521	616	454	495	564	343	403	501	642	688
VA301	Richmond, VA	208	234	284	304	346	377	434	485	548	443	504	547	647	475	519	578	370	441	520		
VA302	Warrenton-Venture Hill Farm, VA	328	369	441	455	508	545	557	681	728	633	678	749	872	627	649	730	503	623	728	869	915
VA303	Lexington VA	169	190	234	238	278	309	358	435	474	380	433	493	571	401	441	528	314	376	464	562	634
VA304	Wallops Island VA	183	213	252	268	326	349	397	473	514	450	506	558	663	498	529	625	373	437	555	631	719
VA362	Ranone VA	169	190	234	238	276	297	344	409	453	354	407	470	556	380	419	506	307	360	464	571	636
VA368	Camp AP Hill VA	244	275	338	342	403	413	472	543	596	478	532	585	632	437	545	619	424	468	564	666	725
VT305	Burlington VT	252	284	341	347	369	441	472	564	601	497	556	617	739	529	577	677	434	509	629	754	847
WA306	Bremerton WA	228	259	315	322	372	418	464	535	624	466	525	603	693	500	563	632	417	497	613	727	807
WA307	Everett WA	284	307	365	337	435	474	576	573	618	518	626	663	761	584	678	707	496	564	686	801	889
WA308	Fort Stevens WA	163	194	234	258	274	315	363	433	484	355	421	465	567	339	434	519	302	362	468	571	636
WA309	Spokane WA	209	292	334	344	419	455	497	547	561	532	610	679	734	571	621	636	497	577	671	784	889
WA310	Spokane WA	169	190	234	248	297	307	366	414	474	343	392	457	542	371	475	497	300	362	461	564	636
WA311	Tacoma WA	199	222	270	284	331	371	473	486	517	441	522	569	656	470	533	627	380	447	560	673	727
WA312	Wacey Island WA	231	260	316	331	365	427	465	543	575	466	538	611	682	502	562	640	419	492	607	724	804



Table N-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O4E	O5E	O6E	O7E	O8E	O9E	O10E
WA313	Yakima, WA	181	204	238	268	300	335	365	448	497	395	461	518	511	423	471	562	104	476	513	624	617	612	614
WA315	Aberdeen, WA	169	190	234	298	274	333	372	440	482	358	426	483	566	391	442	521	302	371	471	576	673	682	683
WD16	Madison, WI	202	228	279	301	367	375	416	431	553	458	500	574	656	484	522	620	369	467	584	620	741	768	768
WD17	Milwaukee, WI	207	203	287	297	308	370	474	540	555	441	487	555	609	459	493	580	373	475	557	642	720	723	723
WD18	Spokane, WA	171	193	234	241	289	306	349	414	462	341	385	448	531	364	415	468	302	353	452	564	629	632	631
WD19	Oshkosh, WI	171	192	234	243	295	315	350	428	471	377	422	479	569	395	435	528	303	375	472	595	631	634	631
WD58	Green Bay, WI	169	190	234	238	288	297	354	422	464	365	419	478	571	391	429	526	302	365	468	600	641	642	644
WD59	Stevenspoint, WI	181	204	241	260	310	324	391	459	504	410	467	538	635	438	482	583	342	413	529	653	701	712	711
WD20	Morgantown, WV	169	190	234	238	274	297	328	384	433	322	380	428	509	357	415	498	302	353	452	584	609	632	629
WD21	Sugar Grove, WV	169	190	234	238	274	297	328	384	433	322	380	428	509	357	415	498	302	353	452	584	609	632	629
WD22	Huntington, WV	175	197	234	238	299	320	365	434	480	380	438	482	574	395	441	520	310	379	470	595	627	640	639
WD23	Charleston, WV	172	194	234	241	286	311	349	413	464	366	435	500	590	407	455	533	320	388	493	605	655	659	663
WD360	Beckley, WV	169	190	234	238	274	297	328	384	433	322	380	428	509	357	415	498	302	353	452	584	609	632	631
WD324	Cheyenne, WY	169	190	234	238	274	297	328	384	433	322	380	428	509	357	415	498	302	353	452	584	609	632	631
ZZ530	County Cost Group	169	190	234	238	274	297	328	384	433	322	380	428	509	357	415	498	302	353	452	584	609	632	631
ZZ540	County Cost Group	169	190	234	238	274	297	328	384	433	322	380	428	509	357	415	498	302	353	452	584	609	632	631
ZZ550	County Cost Group	169	190	234	238	274	297	328	384	433	322	380	428	509	357	415	498	302	353	452	584	609	632	631
ZZ560	County Cost Group	169	190	234	238	274	297	328	384	433	322	380	428	509	357	415	498	302	353	452	584	609	632	631
ZZ570	County Cost Group	169	190	234	238	274	297	328	384	433	322	380	428	509	357	415	498	302	353	452	584	609	632	631
ZZ580	County Cost Group	169	190	234	238	274	297	328	384	433	322	380	428	509	357	415	498	302	353	452	584	609	632	631
ZZ590	County Cost Group	169	190	234	238	274	297	328	384	433	322	380	428	509	357	415	498	302	353	452	584	609	632	631
ZZ600	County Cost Group	169	190	234	238	274	297	328	384	433	322	380	428	509	357	415	498	302	353	452	584	609	632	631
ZZ610	County Cost Group	169	191	234	238	274	297	328	384	433	322	380	428	509	357	415	498	302	353	452	584	609	632	631
ZZ620	County Cost Group	171	193	234	238	274	297	328	384	433	322	380	428	509	357	415	498	302	353	452	584	609	632	631
ZZ630	County Cost Group	172	194	234	238	274	297	328	384	433	322	380	428	509	357	415	498	302	353	452	584	609	632	631
ZZ640	County Cost Group	174	196	234	238	274	297	328	384	433	322	380	428	509	357	415	498	302	353	452	584	609	632	631
ZZ650	County Cost Group	177	200	234	241	284	310	345	428	476	354	392	461	545	382	435	529	303	374	470	594	629	640	639
ZZ660	County Cost Group	190	202	237	249	283	316	355	415	443	346	407	478	561	389	442	533	312	386	483	595	630	641	640
ZZ670	County Cost Group	184	207	242	253	297	321	361	423	452	376	419	490	571	390	430	526	318	377	479	589	624	635	634
ZZ670	County Cost Group	202	228	280	289	341	372	416	455	487	408	476	529	630	453	472	570	308	411	526	640	670	671	670

Table N-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
ZZ680	County Cost Group	192	216	253	265	311	306	381	442	472	389	438	512	596	414	451	553	333	392	500	617	667	691	711
ZZ690	County Cost Group	196	221	258	270	316	345	388	450	481	398	449	525	606	421	459	563	339	402	509	628	679	710	732
ZZ700	County Cost Group	200	226	264	277	325	354	397	461	493	408	460	538	622	432	472	577	348	410	523	640	697	723	746
ZZ710	County Cost Group	206	232	271	284	333	363	407	473	506	417	472	546	637	443	484	587	354	420	537	657	709	736	766
ZZ720	County Cost Group	210	237	277	291	341	372	417	484	514	427	483	559	652	450	497	602	363	431	550	674	728	755	787
ZZ730	County Cost Group	215	242	284	299	349	381	427	492	527	437	495	572	662	460	505	616	372	442	564	685	746	774	801
ZZ740	County Cost Group	220	248	290	306	357	390	440	504	539	446	506	589	678	471	522	631	381	453	577	702	759	786	822
ZZ750	County Cost Group	226	255	298	313	368	399	450	519	552	456	517	602	698	482	534	646	390	463	591	719	776	805	842
ZZ760	County Cost Group	232	262	305	322	377	410	463	530	564	468	533	615	713	496	547	660	402	474	604	736	795	824	863
ZZ770	County Cost Group	237	267	313	330	385	419	473	542	577	478	544	627	729	507	559	675	411	485	618	753	813	843	884
ZZ780	County Cost Group	244	275	323	339	396	431	486	554	594	491	559	645	744	521	576	689	420	499	636	769	831	862	904
ZZ790	County Cost Group	250	282	330	349	407	443	496	569	606	503	570	657	764	532	592	709	433	514	650	792	855	881	925
ZZ800	County Cost Group	257	289	339	358	418	452	509	580	619	516	586	674	779	546	605	724	445	524	668	809	874	900	946
ZZ810	County Cost Group	264	297	348	368	426	464	522	596	634	529	601	692	800	560	621	743	457	539	681	832	892	919	966
ZZ820	County Cost Group	270	305	358	377	437	476	535	607	648	542	616	704	820	575	638	763	469	553	698	848	910	938	984
ZZ830	County Cost Group	277	312	367	387	450	491	548	623	665	557	631	722	835	589	659	777	481	567	718	871	935	967	1015
ZZ840	County Cost Group	285	321	379	399	461	502	561	638	682	574	651	739	853	610	675	797	493	585	736	894	953	982	1035
ZZ850	County Cost Group	292	329	388	408	472	514	578	653	694	586	665	756	876	617	692	816	505	600	754	916	977	1001	1053
ZZ860	County Cost Group	300	338	400	420	483	529	591	669	711	599	681	773	897	632	713	836	520	618	772	939	996	1026	1084
ZZ970	County Cost Group	308	347	409	432	497	541	604	684	728	615	700	790	917	650	729	856	532	632	794	961	1020	1045	1111
ZZ980	County Cost Group	317	357	421	444	511	556	620	700	744	631	715	807	937	667	750	880	547	650	813	984	1044	1071	1132
ZZ990	County Cost Group	324	365	433	456	522	571	637	715	761	647	734	828	963	682	771	900	562	668	831	1012	1069	1090	1153

Table N-3. 1992 VHA Population: With-Dependents

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	C'E	OZE	O3E	O1	O2	O3	O4	O5	O6	O7	Total
AK400	Ketchikan, AK	0	1	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	6
AK401	Sitka, AK	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
AK402	Juneau, AK	1	0	0	0	1	2	8	1	0	0	1	1	2	0	0	0	0	0	0	4	4	0	0	24
AK403	Kodiak Island, AK	0	0	0	0	2	1	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
AK404	Anchorage, AK	24	85	276	705	725	591	451	146	58	4	19	12	13	9	13	91	7	34	254	138	85	27	0	3768
AK405	Fairbanks, AK	21	101	173	362	319	269	167	47	13	4	12	8	6	1	2	37	7	29	163	62	21	4	0	1039
AL001	Anniston-Fort McClellan, AL	16	26	23	99	171	394	372	84	28	3	4	6	11	10	4	22	3	27	107	76	49	5	0	1541
AL002	Fort Rucker, AL	11	31	50	423	868	876	437	151	39	57	145	129	179	23	8	47	44	47	259	140	65	25	1	4575
AL003	Huntsville, AL	29	42	27	78	119	220	284	91	30	4	15	11	7	5	1	19	6	14	66	86	69	27	0	1250
AL004	Mobile, AL	1	4	11	24	62	72	56	15	2	1	1	1	0	8	1	3	1	6	26	22	9	3	0	328
AL005	Montgomery, AL	6	30	110	262	389	420	365	110	53	0	7	6	6	3	9	111	7	23	228	529	325	99	0	3121
AL006	Auburn, AL	0	0	3	14	38	44	23	9	4	0	1	0	1	0	0	5	5	2	23	15	10	5	0	202
AL007	Birmingham, AL	4	1	19	66	161	191	133	37	8	0	8	6	7	3	1	7	6	22	63	71	36	17	0	879
AL008	Tuscaloosa, AL	1	1	0	3	8	20	12	4	3	0	0	0	0	0	1	2	0	2	13	7	2	0	0	77
AR009	Bytherville AFB, AR	7	5	131	286	219	126	94	19	5	0	0	1	0	0	3	14	5	27	69	27	10	1	0	1094
AR010	Little Rock, AR	12	65	202	410	508	483	489	124	79	1	9	7	5	4	2	44	22	52	289	149	111	11	0	3038
AR011	Pine Bluff, AR	0	2	3	6	9	14	13	3	0	0	0	0	0	0	0	0	0	1	7	2	1	0	0	59
AR012	Fort Chaffee-Fort Smith, AR	5	1	6	13	44	70	67	19	6	0	4	3	2	1	1	8	0	4	28	20	10	1	0	311
AZ013	Phoenix, AZ	26	57	244	781	881	711	498	117	48	2	9	8	12	8	15	62	77	82	354	151	150	39	0	4337
AZ014	Fort Huachuca, AZ	18	37	43	208	232	320	305	92	40	2	18	15	15	20	6	32	7	14	120	60	42	22	0	4667
AZ015	Davis Monthan AFB, AZ	15	33	174	615	617	554	303	56	26	1	3	8	15	1	6	54	10	22	161	113	78	30	0	2754
AZ016	Yuma, AZ	1	23	235	365	286	219	163	46	38	2	27	5	10	0	1	4	5	27	88	46	21	2	0	1614
AZ017	Navajo County, AZ	0	1	3	6	9	4	6	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	30
CA018	Oakland, CA	19	126	405	814	1002	1005	570	167	71	1	36	10	10	12	11	58	14	37	165	213	132	59	0	4344
CA019	San Francisco, CA	15	29	75	175	215	248	200	69	32	1	5	4	7	4	3	15	5	32	96	86	72	39	0	1317
CA020	Castle AFB, CA	2	39	164	429	390	265	158	28	21	0	0	0	0	1	8	38	20	23	350	99	44	4	2	2010
CA021	China Lake Naval Weapons Center, CA	1	5	10	17	31	26	20	9	5	0	0	2	1	0	0	1	0	0	5	7	5	1	0	123
CA022	Fresno, CA	4	7	10	27	84	98	71	15	9	0	2	2	1	0	0	1	0	1	13	12	9	1	0	41

Table N-3 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7	Total
CA023	Lemoore NAS, CA	7	38	163	125	259	290	141	50	25	0	3	3	2	3	5	26	2	20	68	64	39	7	1	1341
CA024	Camp Pendleton, CA	100	337	2058	3184	2012	1265	791	345	169	17	73	17	17	15	49	23	73	214	422	218	143	47	1	11590
CA025	Ventura, CA	25	99	244	450	533	539	274	76	43	0	10	4	3	1	5	26	8	18	99	95	56	20	0	2626
CA026	Vandenberg AFB, CA	0	4	12	78	103	84	54	12	2	0	0	0	0	3	3	18	22	7	30	31	33	14	0	510
CA027	Marina Sonoma, CA	1	4	10	28	41	48	36	12	4	0	3	5	6	1	1	4	1	9	17	20	33	17	0	300
CA028	Bartow/Fort Irwin, CA	9	38	42	147	161	134	185	43	9	6	18	8	5	0	1	3	4	12	48	19	8	0	0	959
CA029	George AFB, CA	6	50	107	209	227	187	152	27	13	0	1	0	1	1	0	12	0	3	89	48	44	5	0	1192
CA030	Edwards AFB, CA	7	36	104	219	247	210	126	26	16	0	0	1	1	0	8	19	2	16	82	44	46	9	0	1216
CA031	San Bernardino, CA	14	52	165	500	599	472	348	67	48	1	0	1	1	7	17	66	17	88	291	236	189	76	0	3254
CA032	Twentynine Palms MCB, CA	17	62	367	365	322	267	209	88	32	1	19	5	9	1	10	3	9	33	48	53	14	7	0	1541
CA033	Beale AFB, CA	12	14	45	126	139	133	101	24	9	0	0	0	0	0	2	12	2	12	67	36	38	2	0	774
CA034	Sacramento, CA	16	35	129	411	510	530	358	91	37	3	19	8	11	12	7	69	64	48	291	158	129	44	0	2560
CA035	Stockton, CA	4	2	12	36	57	85	59	19	5	0	1	1	2	1	0	3	0	2	13	9	4	3	0	317
CA036	Vallejo/Trans AFB, CA	11	110	208	661	827	872	529	126	62	1	6	4	1	5	14	64	18	60	311	230	154	68	0	4343
CA037	Los Angeles, CA	79	324	1023	2095	2100	2015	1314	364	182	9	90	25	32	14	73	133	67	244	820	479	329	110	0	11322
CA038	San Diego, CA	608	987	2250	4886	7213	7456	3930	1177	631	2	190	82	65	65	134	392	167	490	1373	1282	741	297	3	34123
CA039	Monterey, CA	76	181	353	653	717	534	361	91	29	22	50	13	15	28	10	65	22	64	545	175	103	24	0	4132
CA040	Bakersfield, CA	4	2	4	16	24	21	14	3	2	0	0	0	0	0	0	2	0	0	3	1	1	0	0	97
CA041	Riverside, CA	12	27	84	265	320	293	192	37	25	0	1	0	1	1	9	30	12	19	137	113	64	25	1	1667
CA042	Humboldt County, CA	1	2	5	21	15	27	16	2	0	0	0	0	0	0	0	3	0	0	2	1	0	0	0	94
CA044	Santa Clara County, CA	7	34	139	278	541	539	314	93	35	0	8	1	3	2	14	35	11	91	208	142	81	9	0	2582
CA392	San Luis Obispo, CA	1	1	3	12	24	22	16	3	2	1	0	1	0	0	0	2	0	0	4	3	1	1	0	97
CA393	Bridgeport, CA	3	2	10	20	21	17	8	0	0	0	0	0	0	0	0	0	0	0	1	3	0	1	0	88
CO045	Denver, CO	65	121	150	428	847	762	494	128	53	2	15	10	15	19	11	94	15	31	257	293	202	111	0	4152
CO046	Colorado Springs, CO	56	263	548	2117	2053	1675	1227	371	127	45	101	48	53	49	45	339	77	222	1017	727	541	190	7	11939
CO047	Fort Collins, CO	0	2	4	4	18	13	13	3	2	1	1	0	3	0	2	2	0	0	15	8	1	1	0	89
CO048	La Junta/Rocky Ford, CO	0	0	0	2	4	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
CT049	New London, CT	19	185	196	491	857	955	478	156	87	1	16	5	14	9	15	66	38	61	181	154	90	22	0	4104
CT050	Hartford, CT	1	3	10	60	65	77	70	27	6	1	0	3	2	2	1	4	14	6	37	30	11	7	0	432

Table N-3 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7	Total
CT051	New Haven/Fairfield, CT	6	10	10	32	68	104	70	21	3	0	1	1	3	3	1	5	0	3	27	23	13	1	0	436
DC053	Washington, DC Metro Area	121	308	568	1872	2782	3394	2770	999	597	21	145	113	121	74	68	649	276	254	2582	5125	5300	3275	228	32764
DE054	Dover AFB, DE	3	43	182	303	428	435	272	52	26	0	0	0	1	4	6	21	8	9	120	87	79	8	0	2493
DE055	Rehoboth Beach, DE	2	2	6	29	44	48	25	5	0	0	4	0	0	0	0	1	1	1	5	5	0	0	0	176
FL056	Eglin AFB, FL	20	119	454	1273	1487	1097	827	183	104	1	4	1	0	4	26	210	24	81	561	399	379	139	0	7422
FL057	Gunsville, FL	0	1	5	10	18	25	13	2	1	1	0	1	0	1	0	7	2	2	24	15	3	5	0	137
FL058	Jacksonville, FL	68	292	1252	2680	4175	3866	1826	588	306	1	54	40	38	46	60	223	63	309	797	620	307	55	0	17532
FL059	Patrick AFB, FL	9	6	17	99	179	219	214	63	32	2	4	2	2	2	10	86	2	14	122	101	87	29	0	1239
FL060	Miami, FL	7	59	171	292	415	363	239	53	16	1	3	2	1	1	0	15	2	16	104	64	47	11	0	1587
FL061	Fort Lauderdale, FL	2	7	6	38	60	74	68	10	3	0	1	3	5	3	1	0	4	3	10	7	3	0	0	367
FL062	Orlando, FL	152	223	424	581	467	518	276	97	62	7	15	15	22	24	6	51	144	27	116	118	83	28	0	3452
FL063	Panama City, FL	7	27	142	335	432	425	298	67	59	0	3	3	2	7	6	64	21	17	177	99	73	23	1	2438
FL064	PL Jacoba, FL	27	82	166	485	876	862	470	175	108	2	16	14	8	59	14	93	364	109	464	233	145	43	0	4817
FL065	Tallahassee, FL	1	6	11	38	60	44	30	13	4	0	1	2	1	0	0	3	4	5	29	12	6	3	0	273
FL066	Tampa, FL	24	70	189	717	996	795	532	127	47	2	12	8	17	7	12	55	22	49	252	324	363	149	2	4793
FL067	West Palm Beach, FL	0	5	9	21	33	50	35	12	6	1	0	3	1	0	0	6	0	3	21	31	11	2	0	251
FL068	Aster, FL	2	5	7	38	44	43	40	8	1	0	1	1	1	0	0	0	0	2	6	4	1	0	0	203
FL069	Key West, FL	3	7	51	71	147	98	37	13	5	0	0	2	1	3	2	4	0	4	14	12	2	3	0	477
FL070	Volusia County, FL	3	2	1	5	18	20	15	4	1	1	1	1	0	0	0	3	0	0	8	9	3	1	0	96
FL328	Avon Park/Sebring, FL	3	4	8	18	24	11	7	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	75
FL397	Polk County, FL	7	5	10	33	49	55	33	8	1	0	3	1	4	0	0	1	0	1	4	7	0	0	0	221
GA071	Atlanta, GA	19	48	114	648	868	829	648	239	126	7	46	37	47	16	9	33	12	56	287	507	418	154	1	5172
GA072	Albany, GA	2	6	12	38	42	42	40	20	11	0	1	0	1	0	1	0	2	0	9	11	7	0	0	244
GA073	Fort Gordon, GA	108	210	91	374	549	854	698	143	64	2	10	20	2	40	4	48	17	39	225	174	109	61	0	3343
GA074	Kings Bay/Brunswick, GA	7	41	143	256	645	796	327	98	59	0	19	7	4	4	14	56	2	13	54	64	38	17	0	2653
GA075	Fort Benning, GA	83	155	174	775	814	1122	889	190	51	4	27	20	15	70	7	31	68	85	272	134	59	15	0	5360
GA076	Robins AFB, GA	5	23	65	268	318	275	239	78	34	0	1	0	3	4	10	61	5	24	112	81	79	54	0	1736
GA077	Savannah, GA	2	11	64	303	357	303	225	63	12	14	82	46	51	5	3	14	3	25	99	46	15	3	0	1747
GA078	Athens, GA	2	0	1	9	21	21	19	8	3	0	5	2	0	16	2	6	22	8	30	19	6	2	0	273

Table N-3 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7	Total
GA079	Dalhousie, GA	1	1	1	5	13	34	27	5	2	0	0	0	0	0	0	1	0	1	8	3	4	1	0	105
GA080	Fort Stewart, GA	15	105	348	1077	1140	905	603	171	42	13	60	24	12	28	7	23	43	87	220	141	60	20	0	5145
GA081	Moody AFB, GA	2	31	131	396	428	295	192	26	17	0	0	0	0	1	3	30	3	35	95	40	35	2	0	1761
HA008	Honolulu County, HI	44	250	808	1875	1926	1602	909	260	149	17	66	43	24	47	27	134	77	155	527	547	349	116	1	9952
HA009	Hawaii County, HI	0	0	1	4	11	24	12	3	0	0	1	0	0	0	0	1	0	0	2	3	1	0	0	63
IA082	Des Moines, IA	1	1	10	40	86	110	67	23	12	0	3	2	4	0	1	1	3	3	25	23	15	4	0	434
IA083	Anies, IA	0	0	0	5	16	16	12	8	2	1	6	2	2	0	1	0	1	0	11	7	2	1	0	90
DO084	Bose, ID	5	2	2	23	90	120	105	24	10	0	2	5	5	3	0	3	0	2	33	38	21	5	0	497
DO085	Idaho Falls, ID	2	2	1	87	167	186	49	14	11	0	2	1	1	7	1	3	29	1	18	9	3	0	0	594
DO086	Mountain Home AFB, ID	0	10	11	125	184	166	126	20	12	0	0	0	0	0	2	19	2	9	57	30	17	1	0	754
DO087	Pocatello, ID	1	1	0	3	4	10	6	4	0	0	0	0	0	0	0	0	0	0	4	1	1	0	0	35
D0333	Moscow, ID/Pullman, WA	1	1	2	4	10	14	8	4	2	0	0	0	1	0	0	1	0	0	6	5	2	3	0	63
LO088	Charlottesville, IL	34	24	37	64	156	128	77	16	7	0	1	0	0	1	2	14	5	3	30	16	13	7	0	638
LO089	Rock Island, IL	2	3	1	15	44	47	49	10	5	0	2	0	1	0	0	3	0	2	24	24	11	5	0	248
LO090	Peoria, IL	2	1	5	23	43	51	52	20	3	0	2	1	4	0	1	0	2	2	17	3	7	0	0	237
LO092	Great Lakes NAVTRACEN, IL	381	588	346	627	895	1058	550	165	64	1	19	14	12	8	9	48	8	18	218	157	26	24	0	5314
LO093	Scott AFB, IL	15	27	81	267	418	383	389	145	96	2	6	5	7	4	6	167	29	51	385	428	356	170	1	3435
LO325	Chicago, IL	12	23	42	131	240	278	226	54	19	1	7	5	4	1	0	4	1	16	96	91	55	17	1	1314
LO335	Springfield-Decatur, IL	2	5	3	19	58	91	50	16	9	1	2	3	4	0	1	2	0	3	10	14	9	5	0	364
LO363	Winnebago, IL	0	3	4	13	25	37	25	7	0	1	0	0	0	0	1	1	0	1	3	6	3	1	0	131
LO366	Joliet Army Depot, IL	3	2	4	14	15	23	27	6	1	0	1	0	0	3	0	2	0	0	10	4	1	0	0	115
NO094	Indianapolis-Fort Harrison, IN	14	37	39	223	312	387	515	140	41	1	15	11	16	5	4	42	12	30	172	142	80	18	1	2154
NO095	Grossmont AFB, IN	5	23	40	114	142	102	71	14	7	0	0	0	0	1	2	11	2	18	98	37	23	5	0	717
NO096	Lafayette, IN	1	1	1	2	9	12	15	8	1	0	0	1	0	0	0	3	0	1	27	6	5	2	0	95
NO097	Fort Wayne, IN	1	2	0	17	43	48	28	9	2	0	1	1	0	0	0	0	0	4	6	6	4	1	0	173
NO099	South Bend, IN	1	3	8	15	22	40	20	7	3	0	2	0	0	0	0	0	0	1	20	7	2	2	0	151
NC317	Evansville, IN	3	3	8	5	22	25	27	6	2	0	0	1	1	0	0	1	0	1	4	0	1	0	0	111
NC338	Terre Haute, IN	0	1	1	4	18	29	19	5	1	0	0	0	0	0	0	0	0	0	5	8	6	0	0	98
NC67	Gary, IN	10	6	13	43	74	59	35	9	0	1	0	1	1	3	0	1	0	3	7	3	0	0	0	267

Table N-3 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7	Total
IK398	Bloomington, IN	0	0	0	2	5	10	11	4	1	0	0	1	0	0	1	1	0	0	16	9	3	2	0	65
KS100	Fort Riley, KS	97	250	342	989	1033	831	515	159	39	26	73	35	19	20	4	33	26	58	199	148	36	10	0	4942
KS101	Wichita/McConnell AFB, KS	6	41	147	446	446	316	213	54	20	0	0	2	3	1	0	25	5	20	121	92	53	7	0	2017
KS102	Fort Leavenworth, KS	56	6	13	57	134	138	78	28	7	1	3	2	2	0	2	36	0	3	158	606	242	21	0	1593
KS104	Lawrence, KS	1	0	0	1	7	4	6	4	1	0	0	0	0	0	0	7	2	1	25	12	2	0	0	73
KS105	Topeka, KS	0	2	5	42	82	96	77	21	9	0	0	4	3	5	1	10	3	13	28	37	31	5	0	474
KY106	Fort Campbell, KY	40	219	481	1643	1676	1511	991	316	56	62	208	104	68	63	10	37	35	95	346	176	67	14	0	8219
KY107	Lexington, KY	1	3	9	21	30	37	38	14	5	0	2	1	0	3	0	4	0	2	20	14	5	2	0	211
KY109	Louisville, KY	5	8	18	64	119	151	107	26	6	0	5	1	2	0	0	4	2	12	34	2	25	8	0	638
KY110	Fort Knox, KY	312	124	96	407	463	738	729	155	60	3	18	17	11	30	3	19	22	43	133	107	53	10	0	3575
LA113	England AFB, LA	7	18	114	447	361	272	183	40	17	1	8	4	4	3	5	14	8	29	70	28	24	5	0	1562
LA114	Baton Rouge, LA	3	2	12	24	52	53	70	18	4	1	1	4	5	0	1	1	0	3	25	32	15	3	0	315
LA115	Fort Polk, LA	41	169	369	898	915	794	466	117	28	31	63	31	21	23	4	22	49	75	202	132	53	7	0	4511
LA116	New Orleans, LA	17	45	104	335	662	741	461	131	89	6	13	10	14	6	13	34	8	38	144	210	163	47	0	3297
LA117	Shreveport/Barksdale AFB, LA	10	59	271	856	748	552	349	94	51	1	4	2	0	8	3	43	9	100	344	130	82	13	1	3740
LA118	Lafayette, LA	0	2	11	46	53	56	37	17	3	0	2	1	0	0	1	3	3	4	12	13	2	1	1	121
LA326	St Mary and Terrebonne, LA	1	1	0	15	17	18	10	1	0	0	0	0	0	0	0	0	0	1	2	3	2	0	0	71
LA370	Lake Charles, LA	2	4	10	19	37	36	25	7	3	0	0	0	0	0	1	4	0	2	9	5	5	1	0	172
LA371	Monroe, LA	3	2	4	20	23	32	24	5	2	0	0	0	1	0	1	1	0	1	10	3	2	2	0	153
MA120	Boston, MA	6	5	17	48	101	122	113	41	5	1	2	4	5	4	1	15	5	11	129	83	55	25	0	754
MA121	Cape Cod, MA	0	3	8	12	37	32	38	10	6	1	2	2	0	0	0	0	0	1	19	15	8	1	0	156
MA122	Worcester, MA	1	0	6	10	21	32	35	8	3	0	2	0	0	0	0	1	0	0	20	12	7	4	0	162
MA123	Fort Devens/Ayer, MA	19	60	53	169	218	313	269	55	11	3	18	10	6	3	1	9	3	12	48	37	22	7	0	1549
MA124	Brookton/S Weymouth, MA	4	6	19	69	152	145	95	25	13	0	2	1	2	3	2	0	0	4	33	23	9	1	0	638
MA125	Essex Co. MA	2	3	4	4	8	24	15	3	1	0	1	0	0	0	0	0	0	0	3	7	1	2	0	75
MA126	Hampden County, MA	3	4	9	47	270	273	192	42	17	0	0	1	1	0	2	5	0	18	62	53	41	9	1	1047
MA377	Hanscomb AFB, MA	1	12	18	62	90	69	70	13	8	1	3	2	1	1	3	38	5	39	145	101	113	20	0	878
MD127	Aberdeen Proving Grounds, MD	88	78	19	58	104	238	285	49	16	3	19	14	13	10	0	15	3	10	95	94	47	11	0	1271
MD128	Annapolis, MD	2	15	40	45	84	71	35	9	9	0	1	2	1	0	0	11	0	8	54	61	33	9	0	537

Table N-3 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7	TOT
MD129	Baltimore, MD	9	13	18	67	189	247	220	54	13	4	11	8	6	5	5	9	3	13	82	64	46	26	0	1132
MD130	Fort Detrick, MD	1	2	20	60	65	83	51	18	6	1	2	3	3	0	1	9	0	2	17	54	56	24	0	479
MD131	Fort Riche, MD	1	4	7	63	78	77	69	38	11	0	2	2	2	0	0	8	0	2	13	17	16	9	0	417
MD133	Fort G. G. Meade, MD	5	12	57	393	593	554	349	118	52	8	25	30	18	6	8	57	7	30	191	184	131	52	1	2080
MD134	Indian Head NAVORDSTA, MD	1	0	6	11	42	65	41	11	10	0	2	0	1	1	1	7	2	0	8	10	8	2	0	218
MD135	Potomac River, MD	5	12	71	221	393	311	168	68	30	0	3	1	5	1	5	23	5	4	146	92	40	8	0	1615
ME136	Brunswick, ME	4	22	102	196	351	417	146	55	24	1	6	4	1	1	8	18	3	34	91	112	53	10	0	1661
ME137	Long AFB, ME	4	17	29	65	103	101	65	12	2	0	0	0	0	1	0	11	0	3	40	9	4	0	0	467
ME139	Portland, ME	1	1	0	7	17	32	22	4	1	1	0	0	0	0	0	0	0	2	8	3	2	0	0	101
ME140	Bar Harbor, ME	0	2	7	12	23	36	17	5	3	0	1	0	0	1	0	0	2	1	4	2	3	0	0	118
ME390	Bangor, ME	3	2	1	35	77	80	49	11	3	1	6	4	8	0	0	7	1	7	22	24	12	1	0	354
MI142	Detroit, MI	20	20	44	155	347	362	216	58	21	3	2	3	4	5	4	12	4	20	80	104	64	10	0	1555
MI143	K.I. Sawyer AFB, MI	2	13	36	107	157	105	61	14	3	0	1	1	0	1	2	13	2	13	66	25	10	0	0	633
MI145	Sault Ste Marie, MI	0	0	0	0	0	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
MI146	Traverse City, MI	0	0	2	12	17	29	6	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	63
MI148	Muskegon, MI	1	1	1	2	10	12	9	2	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	40
MI149	Port Huron, MI	2	4	0	2	1	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
MI150	Wurtsmith AFB, MI	2	30	85	104	124	86	65	18	6	0	0	0	0	1	3	7	4	17	66	22	18	1	0	619
MI152	Battle Creek/Kalamazoo, MI	2	0	3	11	22	36	27	7	1	0	1	0	0	0	0	3	0	0	7	8	7	7	0	144
MI153	Lansing, MI	3	2	4	17	66	62	64	21	11	0	3	9	4	0	1	4	0	3	23	21	10	8	0	349
MI154	Grand Rapids, MI	5	1	15	19	48	39	35	11	1	0	0	1	0	0	0	3	0	0	4	8	2	0	0	193
MI155	Ann Arbor, MI	2	2	3	4	7	26	9	5	1	0	0	0	1	0	0	5	0	1	33	16	5	2	0	121
MI156	Saginaw, MI	2	1	4	14	35	35	18	3	0	0	1	1	0	0	0	0	0	0	3	1	0	1	0	103
MI241	Flint, MI	5	4	1	13	15	16	13	3	2	0	1	1	0	0	0	1	0	0	3	2	2	0	0	41
MI159	Duluth, MN	0	1	2	24	43	63	52	13	0	0	0	2	1	0	1	2	0	2	8	7	3	0	0	101
MI159	Minneapolis/St. Paul, MN	5	8	25	89	194	258	261	75	28	2	14	9	16	3	2	22	5	22	95	87	52	12	0	1000
MO160	Kansas City MO	10	18	21	89	189	220	161	46	18	1	5	4	10	1	3	7	2	21	65	54	28	10	0	1000
MO161	St. Louis, MO	12	18	46	87	249	273	348	97	25	4	15	14	23	0	3	22	2	9	88	201	125	43	0	1000
MO162	Whiteman AFB, MO	3	32	121	298	211	157	129	23	17	0	0	0	0	6	11	33	8	17	56	22	7	5	0	1000



Table 1-3 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7	Total	
MO163	Fort Leonard Wood, MO	96	79	52	195	281	482	465	109	31	2	12	15	9	18	2	18	7	22	87	88	32	18	0	2122	
MO164	Springfield, MO	4	4	8	23	28	44	24	7	1	0	0	0	2	0	1	1	0	1	8	7	1	1	0	163	
MO165	Columbia/Jefferson City, MO	1	3	1	23	56	64	56	14	5	1	4	3	3	3	0	2	2	6	30	35	20	10	0	341	
MS168	Gulfport, MS	109	213	382	568	740	790	455	110	52	0	10	5	5	3	12	84	18	43	202	168	88	33	0	4089	
MS169	Columbus AFB, MS	0	7	10	41	59	68	58	16	3	0	0	1	2	0	3	5	10	18	65	18	13	1	0	598	
MS170	Jackson, MS	2	2	14	39	134	179	137	48	13	1	7	3	5	5	3	8	3	9	45	44	21	5	0	725	
MS171	Mendota, MS	38	41	39	46	91	98	62	19	15	0	1	1	2	0	1	2	18	14	48	32	10	0	0	573	
MS172	Hattiesburg, MS	1	1	2	5	29	56	65	19	3	1	1	4	0	0	0	2	0	2	13	9	6	0	0	219	
MT175	Malmstrom AFB/Great Falls, MT	10	47	148	273	332	227	155	28	9	0	0	0	0	5	10	32	33	31	76	22	19	0	0	1457	
NC177	Morehead/Cherry Pt MCAS, NC	9	62	485	523	520	428	332	120	85	9	39	14	16	3	20	4	18	88	200	121	58	16	0	3172	
NC178	Camp Lejeune, NC	119	379	2085	3013	2132	1489	1064	436	262	25	166	23	21	21	69	21	103	230	545	238	117	21	0	12573	
NC179	Charlotte, NC	3	4	11	59	134	143	95	30	5	1	2	0	1	0	1	4	4	15	32	20	10	6	0	578	
NC180	Durham/Chapel Hill, NC	3	2	4	11	22	33	38	11	5	0	2	1	0	0	0	6	2	10	55	45	15	12	0	276	
NC181	Elizabeth City, NC	1	1	0	0	3	3	1	2	0	0	0	0	0	3	0	1	0	0	1	2	0	0	0	19	
NC182	Fort Bragg/Pope AFB, NC	65	343	884	2766	3543	3226	2470	882	255	91	289	141	83	64	26	122	67	229	885	600	315	64	0	17329	
NC183	Seymour Johnson AFB, NC	6	47	151	284	353	285	268	56	23	1	0	0	1	3	3	31	6	27	165	88	41	6	0	1845	
NC184	Greensboro, NC	3	6	13	44	84	98	68	18	5	0	0	0	0	0	1	2	3	20	34	27	15	5	0	446	
NC185	Raleigh, NC	0	5	5	29	81	107	104	37	13	1	1	0	9	0	2	10	1	5	45	49	18	7	0	529	
NC186	Wilmington, NC	0	1	8	16	21	32	20	4	1	0	1	0	0	0	0	2	2	2	11	9	7	2	0	139	
ND188	Bismarck, ND	0	0	1	11	21	35	32	8	4	0	1	2	4	5	0	2	0	2	9	9	6	2	0	154	
ND189	Fargo, ND	0	0	1	13	39	66	43	11	0	0	0	1	0	0	1	3	0	0	11	10	5	1	0	204	
ND190	Grand Forks, ND	3	19	58	182	228	180	100	25	8	0	0	1	0	2	6	19	7	33	64	22	14	2	0	375	
ND191	Minot AFB, ND	4	8	32	152	207	165	121	23	9	0	0	1	0	0	0	15	3	19	48	17	6	0	0	473	
NE192	Omaha/Offutt AFB, NE	9	73	338	770	954	773	608	182	131	0	4	0	1	9	24	232	20	87	578	623	511	209	1	677	
NE193	Lincoln, NE	2	0	3	10	46	63	55	11	5	0	16	4	11	0	1	3	0	2	14	17	9	4	0	276	
NH194	Portsmouth, NH/Kittery, ME	0	2	8	32	108	132	89	17	11	0	3	1	1	2	0	15	5	11	44	46	27	5	0	619	
NH195	Manchester/Concord, NH	4	2	7	19	43	47	49	17	4	0	5	3	7	0	2	1	0	3	16	10	5	3	0	249	
NJ196	Atlantic City, NJ	0	0	3	9	39	41	35	4	2	0	3	0	1	0	0	0	0	0	1	5	3	4	0	0	140
NJ198	Cape May, NJ	2	2	2	14	18	21	11	1	0	0	0	0	0	3	0	1	0	0	1	0	0	0	0	75	

Table N-3 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7	Total
NJ200	Fort Monmouth/Earls NWS, NJ	14	43	93	115	147	162	117	35	13	2	13	4	4	5	4	13	5	10	56	57	40	16	0	966
NJ201	Parth Amboy, NJ	2	2	8	19	66	80	74	11	6		3	2	2	0	2	4	1	1	20	20	11	5	0	338
NJ202	Northern New Jersey	3	5	13	58	107	138	112	16	5	0	5	1	4	3	1	9	2	5	35	55	22	11	0	610
NJ203	Trenton, NJ	1	2	3	15	31	45	35	8	7		4	2	2	0	1	2	1	5	34	22	12	5	0	236
NJ204	Fort Dix/McGuire/Lakehurst, NJ	144	165	154	487	718	689	505	108	36	1	14	10	2	8	6	29	13	71	250	237	136	26	0	3858
NM205	Holloman AFB/Alamogordo, NM	7	64	177	360	386	315	203	42	18	0	0	1	0	1	3	34	3	17	126	55	58	4	0	1843
NM206	Albuquerque/Kirland AFB, NM	8	57	97	190	268	299	213	65	30	2	7	7	5	3	12	79	3	26	277	217	195	63	0	2125
NM207	Cannon AFB/Clovis, NM	7	49	190	391	382	267	150	23	13		0	1	0	1	0	22	22	44	132	41	29	0	0	1754
NM208	Gallop, NM	0	1	0	2	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	11
NM209	White Sands MRA/Las Cruces, NM	2	9	8	22	33	24	28	11	2	1	0	0	0	3	0	5	1	0	17	12	11	4	0	193
NM210	Santa Fe/Los Alamos, NM	1	0	2	16	22	34	27	8	1	0	1	4	5	0	0	4	0	2	8	11	5	2	0	152
NY211	Fallon NAS, NY	2	5	35	32	70	61	27	11	5	0	2	2	0	2	2	10	0	3	24	15	9	2	0	319
NY212	Nellis AFB/Las Vegas, NV	9	58	231	1124	1081	851	456	122	44	2	3	1	1	5	8	79	6	32	283	195	123	29	0	4750
NY213	Carson City, NV	1	2	4	19	42	59	47	16	8	1	1	1	4	3	0	2	0	3	12	15	13	5	0	257
NY215	Ballston Spa/Albany, NY	2	2	7	38	208	382	171	57	23	0	4	7	3	9	3	14	35	16	67	42	22	8	0	1121
NY216	Buffalo, NY	3	2	7	37	108	128	97	19	2	1	1	0	2	0	3	3	2	21	41	29	17	2	0	524
NY217	West Point, NY	3	3	7	32	80	136	88	24	12	1	7	3	12	1	0	2	1	3	45	56	17	3	0	537
NY218	Long Island, NY	3	7	17	46	92	90	75	23	6	1	4	1	3	0	2	2	1	9	25	23	12	4	1	446
NY219	New York City, NY	20	37	74	227	295	282	211	54	18	1	6	13	2	3	2	11	4	21	63	78	49	14	0	1485
NY220	Pittsburgh, NY	3	25	79	137	168	147	113	18	9	0	0	0	0	0	0	10	1	7	56	25	17	0	0	817
NY221	Rochester, NY	2	4	10	30	70	74	55	5	4	1	4	1	5	0	0	1	0	2	34	12	9	2	0	335
NY222	Rome/Griess AFB, NY	4	30	130	461	431	310	182	29	12	10	19	4	5	1	8	35	14	39	176	83	39	5	1	2027
NY223	Seneca Army Depot/Syracuse, NY	9	11	27	45	153	158	115	37	4	0	5	2	3	1	3	8	2	5	50	30	18	3	1	689
NY225	Fort Drum/Watertown, NY	45	132	146	533	286	231	176	51	20	7	34	10	5	5	1	8	6	25	82	49	16	3	0	1542
NY226	Binghamton/Ithaca, NY	0	2	0	6	22	33	35	6	1	0	1	0	0	0	0	4	0	2	33	12	5	2	0	164
NY349	Westchester County, NY	0	2	6	12	23	28	17	3	0	0	1	0	1	0	0	0	1	1	8	5	4	4	0	115
NY395	Jamestown, NY	1	0	0	2	12	24	12	2	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	56
OH227	Aurora, OH	3	9	16	43	84	114	70	16	1	0	0	2	0	0	0	5	2	8	23	16	8	2	0	422
OH228	Cincinnati, OH	12	3	7	29	86	96	94	26	5	2	1	1	1	0	2	7	0	2	35	21	8	5	1	445

Table N-3 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7	Tot.
OH229	Cleveland, OH	270	108	83	89	112	178	113	24	8	1	6	1	6	1	2	12	2	4	25	25	18	5	0	1152
OH230	Columbus, OH	13	11	19	106	316	367	245	74	28	1	5	4	8	1	5	21	8	35	111	123	87	29	0	1535
OH231	Wright-Patterson AFB, OH	10	35	120	380	539	472	297	94	52	0	0	1	1	26	97	389	44	180	1103	577	480	194	3	5066
OH232	Toledo, OH	6	4	12	22	61	58	35	14	2	1	3	1	0	0	0	2	2	2	7	8	4	1	0	245
OH233	Youngstown, OH	6	5	8	31	89	70	44	5	3	1	0	0	0	0	2	0	0	2	7	3	2	0	0	278
OH382	Mansfield, OH	4	1	4	22	37	27	17	2	1	0	0	1	0	0	2	2	1	1	2	4	0	1	0	133
OK235	Altus AFB, OK	6	35	166	280	248	197	129	22	13	0	1	0	0	0	2	12	8	16	71	45	26	2	0	1279
OK236	Vance AFB/End, OK	2	5	17	43	31	44	25	5	4	0	1	0	0	3	5	7	102	50	119	18	10	0	0	491
OK237	Fort Sill/Lawton, OK	229	182	226	1030	1190	1445	1022	279	77	16	44	30	38	55	7	47	36	90	322	168	48	10	0	6569
OK239	Oklahoma City, OK	26	70	247	855	882	736	504	129	54	1	5	4	4	16	22	150	34	85	362	225	134	68	0	4612
OK240	Tulsa, OK	0	6	13	38	55	85	59	15	2	0	1	5	2	3	0	1	0	4	13	17	6	3	0	327
OR241	Asheville, OR	0	1	0	1	1	8	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	15
OR242	Coos Bay, OR	0	2	2	3	5	6	12	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	32
OR243	Portland, OR	8	13	24	100	204	203	185	43	16	0	3	3	5	3	2	13	3	12	38	48	23	8	2	960
OR244	Salem, OR	3	2	2	13	23	28	31	6	4	2	2	1	3	0	0	0	0	1	3	6	2	3	0	133
OR245	Corvallis, OR	1	1	0	0	9	7	11	0	1	0	0	0	0	1	0	2	0	0	9	7	3	2	0	55
OR246	Eugene, OR	3	7	4	11	14	26	21	7	1	0	0	0	0	0	0	1	0	0	8	5	2	0	0	110
PA247	Carlisle Barracks, PA	10	9	9	75	189	243	241	72	20	0	9	10	24	5	1	15	2	4	50	92	148	66	0	1254
PA248	Philadelphia, PA/Camden, NJ	71	193	452	585	879	839	496	119	55	2	29	13	12	9	14	35	11	25	181	181	116	44	1	4362
PA249	NAS Willow Grove, PA	2	17	48	137	346	393	197	44	14	2	3	7	5	1	2	12	4	10	83	124	65	17	0	1532
PA250	Pittsburgh, PA	8	5	17	63	221	273	233	57	15	1	5	2	3	2	3	14	7	14	87	67	37	8	0	1141
PA251	Reading, PA	2	0	12	17	25	30	16	2	0	0	0	0	0	3	2	0	0	1	6	3	2	0	0	119
PA252	State College, PA	0	2	2	6	15	14	15	3	0	0	1	0	2	3	0	4	1	1	36	14	4	2	0	125
PA253	Erie, PA	4	1	6	15	24	21	23	4	2	1	2	1	0	0	0	1	0	2	5	3	2	0	0	117
PA254	Wilkes-Barre/Scranton, PA	0	2	4	37	130	109	92	24	5	1	3	2	1	0	2	1	3	17	33	41	22	4	0	534
PA255	Allentown/Bethlehem, PA	2	1	4	21	45	48	38	7	2	0	5	0	2	3	0	2	1	1	10	8	5	2	0	278
PA380	Letterkenny Army Depot, PA	1	0	1	1	3	11	21	8	3	0	1	1	1	0	0	2	0	1	7	6	6	4	0	77
PA383	Johnstown, PA	1	0	1	4	10	26	16	2	1	0	1	1	1	0	0	1	0	0	5	3	0	2	0	72
RI256	Newport, RI	11	35	124	213	258	300	158	46	24	1	9	3	1	14	6	64	84	49	163	186	148	52	0	1111

Table N-3 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7	Total
RI257	Providence, RI	8	2	23	39	121	163	121	39	12	1	3	3	4	3	1	2	0	5	51	37	21	3	0	668
SC238	Beaufort/Parris Island, SC	81	106	324	460	560	325	199	61	51	6	15	5	6	4	6	4	2	23	94	47	24	8	0	2411
SC259	Charleston, SC	61	257	648	1892	3323	3000	1470	441	256	1	38	21	10	38	52	144	81	222	498	404	245	53	0	13143
SC260	Columbia/Fort Jackson, SC	308	157	68	240	452	679	656	159	61	6	19	11	10	13	5	33	6	47	180	132	104	48	0	3393
SC261	Greenville, SC	6	5	15	38	70	94	82	19	6	3	6	1	2	0	2	5	2	6	33	23	15	2	0	434
SC262	Myrtle Beach AFB, SC	0	20	113	366	325	235	182	23	22	0	0	2	0	0	0	18	4	17	75	29	26	3	0	1461
SC263	Sumter/Shaw AFB, SC	4	42	133	396	442	387	268	58	32	0	0	0	0	1	10	51	13	57	151	106	103	36	0	2290
SD264	Rapid City/Elsworth AFB, SD	11	66	181	477	557	373	228	45	24	1	1	2	1	10	12	53	21	51	202	76	49	7	0	2457
SD265	Sour Falls, SD	1	0	2	11	22	52	32	11	3	0	0	0	1	0	0	1	0	2	6	3	2	0	0	149
TN266	Chattanooga, TN	2	4	13	92	140	131	72	33	6	1	3	1	1	0	1	3	3	12	27	31	15	2	0	553
TN267	Knoxville, TN	1	6	7	30	101	140	101	26	10	1	4	1	3	3	5	11	2	7	46	39	17	4	0	501
TN268	Memphis, TN	156	246	247	319	616	748	367	104	82	0	10	7	10	3	6	34	2	15	64	105	58	19	0	3121
TN269	Nashville, TN	3	6	20	79	140	172	159	52	20	1	7	6	5	0	5	14	1	11	55	61	28	14	0	639
TN353	Johnson City/Kingsport, TN	1	2	13	44	69	86	53	11	5	1	2	2	2	0	0	2	1	6	18	9	5	1	0	332
TN354	Manchester/Tulahoma, TN	0	0	1	2	12	14	15	3	1	0	0	0	0	0	0	3	4	0	3	14	7	3	0	62
TX270	Arlene/Dyess AFB, TX	13	66	237	563	504	356	228	45	15	0	0	0	0	4	3	30	15	52	241	117	73	0	0	2210
TX271	Ananilo, TX	2	2	6	6	18	24	17	6	3	0	0	1	0	0	0	2	0	0	4	4	1	0	0	95
TX272	Austin/Bergstrom AFB, TX	10	26	163	445	475	440	311	86	46	0	6	8	7	4	5	64	9	34	182	152	109	43	0	2126
TX273	Beaumont, TX	4	5	8	14	25	35	21	4	0	0	0	1	2	0	0	1	0	0	4	4	4	2	0	133
TX274	College Station, TX	2	0	2	7	17	11	25	5	4	1	0	2	1	1	0	9	0	2	45	7	6	3	0	149
TX275	Corpus Christi, TX	4	23	49	126	207	145	92	37	17	0	5	0	2	11	5	17	83	41	125	51	43	10	0	1093
TX276	Kingsville, TX	0	2	5	18	54	66	20	8	6	0	1	1	0	1	4	6	8	18	59	10	17	1	0	303
TX277	Dallas, TX	18	51	86	300	568	566	367	99	44	3	10	21	16	2	4	30	6	32	145	172	111	54	3	2123
TX278	Laughlin AFB/Del Rio, TX	2	5	14	23	44	41	23	4	2	0	0	0	0	2	2	3	70	25	66	14	12	1	0	351
TX279	El Paso, TX	56	132	178	825	934	921	814	417	160	24	108	43	35	48	7	38	34	69	244	221	94	45	0	5447
TX280	Galveston, TX	1	1	3	8	19	5	17	2	0	1	0	0	0	0	0	0	0	0	4	2	0	1	0	63
TX281	Brownsville, TX	3	4	9	18	28	32	40	4	0	1	0	0	0	0	0	0	0	1	8	5	2	0	0	155
TX282	Houston, TX	17	26	61	131	234	218	165	42	16	1	4	12	11	3	1	13	2	13	98	100	52	36	0	1275
TX283	Lubbock/Reese AFB, TX	6	9	37	71	77	65	57	12	4	0	1	0	0	3	4	14	114	94	165	38	24	4	0	818

Table N-3 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7	T52E
TX284	Goodfellow AFB, TX	17	31	106	173	237	267	196	33	14	0	2	2	0	4	2	27	26	5	45	21	16	9	0	1233
TX285	San Antonio, TX	194	278	590	1841	2409	2176	1722	518	308	17	23	31	28	49	48	467	94	213	1450	1289	877	456	1	15076
TX286	Fort Hood, TX	43	225	810	2740	2629	2085	1469	434	159	75	233	121	94	59	9	72	56	179	474	415	230	51	1	12660
TX287	Texarkana, TX	1	1	4	21	22	26	12	7	2	0	1	0	0	0	0	3	0	2	2	8	5	2	0	119
TX288	Wichita Falls/Sheppard AFB, TX	55	46	86	109	210	155	155	27	9	0	1	0	0	1	3	42	53	21	159	67	47	31	0	1008
TX289	Beaville, TX	0	0	3	17	42	22	8	10	4	0	0	1	1	0	0	3	5	10	22	9	8	1	0	165
TX356	Fort Worth, TX	18	63	234	777	709	489	329	73	29	0	0	2	0	1	15	41	9	96	246	130	92	20	0	3570
UT291	Odgen/Hill AFB, UT	9	39	121	470	643	434	290	63	27	2	3	6	0	2	8	49	11	31	175	91	62	20	1	2618
UT292	Salt Lake City, UT	5	8	26	121	234	246	211	64	25	0	15	9	14	8	2	11	8	20	58	86	51	11	0	1235
UT357	Provo, UT	1	1	8	36	56	56	24	5	1	0	1	0	2	0	0	1	3	2	14	4	3	0	0	217
VA295	Charlottesville, VA	1	0	1	3	14	18	20	4	1	0	0	1	0	0	0	5	0	7	54	66	16	10	0	222
VA296	Quantico/Woodbridge, VA	17	28	155	341	331	255	221	101	66	13	35	5	9	38	15	5	154	13	223	315	126	41	1	2526
VA297	Hampton/Newport News, VA	85	231	373	1427	1729	1518	1154	399	200	20	67	40	65	19	18	200	21	93	512	647	513	160	3	3404
VA298	Norfolk/Portsmouth, VA	232	1086	2887	6809	1021	10032	5215	1632	869	7	335	134	82	137	215	660	120	143	1690	1709	1053	409	3	45571
VA300	Petersburg/Fort Lee, VA	42	72	28	127	151	251	319	110	27	2	12	15	11	8	2	25	5	13	126	111	71	16	1	1545
VA301	Richmond, VA	6	6	15	52	138	161	140	36	16	0	7	8	7	0	0	9	1	10	66	67	54	16	0	815
VA302	Warrenton/Vint Hill Farm, VA	1	6	10	45	68	55	58	10	2	1	4	3	0	0	1	4	0	2	10	22	21	2	2	325
VA303	Lexington, VA	2	0	0	2	9	20	18	7	2	0	0	0	0	0	0	0	0	0	19	7	3	3	0	91
VA304	Wallops Island, VA	1	0	0	3	10	11	11	0	1	0	1	1	1	1	2	2	0	0	1	0	1	0	0	45
VA362	Reanoke, VA	1	4	2	15	26	40	29	7	2	1	1	0	0	0	0	2	0	1	18	6	5	5	0	160
VA368	Camp A.P. Hill, VA	0	4	9	59	71	92	61	10	7	0	0	2	1	0	2	13	0	1	21	27	15	4	0	395
VT305	Burlington, VT	2	2	3	15	81	87	74	17	8	0	4	1	5	3	0	2	2	5	25	24	11	8	0	376
WA306	Bremerton, WA	23	158	368	920	1484	1383	658	222	116	1	31	20	11	12	19	86	17	64	160	204	82	35	0	6102
WA307	Everett, WA	3	1	1	12	17	29	35	3	4	1	1	0	1	0	1	0	2	1	4	2	2	0	0	119
WA308	Port Angeles, WA	0	1	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
WA309	Seattle, WA	3	18	22	97	205	274	179	60	21	2	3	4	9	1	3	27	3	7	100	81	42	10	0	1171
WA310	Spokane, WA	7	56	192	343	351	304	223	47	14	1	1	1	1	3	9	27	7	47	133	77	59	8	0	1910
WA311	Tacoma, WA	44	208	484	1704	1782	1522	1187	356	124	7	81	60	49	16	15	82	31	108	423	361	264	77	0	8523
WA312	Whidbey Island, WA	14	57	254	457	755	719	351	100	64	0	12	9	9	2	10	37	12	66	202	151	71	14	0	3526

Table N-3 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O4	O5	O6	O7	Total			
WA313	Yakima, WA	1	3	5	18	28	24	22	7	2	1	0	1	0	3	0	1	0	5	1	1	0	122		
WA315	Aberdeen, WA	2	1	2	2	4	3	1	4	0	0	0	0	0	0	0	1	0	1	0	0	23			
WD316	Madison, WI	1	1	11	44	78	95	81	17	8	2	4	3	8	6	3	1	10	38	54	49	22	575		
WD317	Milwaukee, WI	4	6	11	50	169	202	178	45	12	1	3	1	1	0	0	7	2	9	56	43	27	850		
WD318	Sparta/Fort McCoy, WI	1	3	6	97	134	132	124	32	7	1	8	5	3	3	0	3	3	8	27	31	9	640		
WD319	Oshkosh/Appleton, WI	0	0	2	15	26	17	27	5	1	0	2	1	0	0	0	0	2	4	0	1	0	103		
WD358	Green Bay WI	0	2	3	8	22	37	28	5	2	0	0	0	2	0	1	2	1	7	13	6	5	146		
WD359	Stevenspoint, WI	0	2	1	14	15	32	32	9	5	0	0	1	1	0	0	1	0	2	8	3	2	128		
WV320	Morgantown, WV	1	0	3	13	28	28	22	7	2	0	0	1	0	0	0	1	1	8	3	1	2	122		
WV321	Sugar Grove, WV	1	3	4	9	17	10	5	2	0	0	0	0	0	0	0	1	0	0	0	0	51			
WV322	Huntington, WV	0	2	2	5	13	21	10	2	3	0	2	1	0	0	0	0	2	4	2	2	1	70		
WV323	Charleston, WV	3	2	3	20	86	85	52	18	7	0	2	1	0	1	0	1	1	4	24	21	16	349		
WV360	Beckley, WV	5	1	2	3	12	18	25	4	3	0	0	0	0	0	0	1	0	1	4	2	1	81		
WY324	Cheyenne, WY	2	37	125	281	330	230	155	29	19	1	2	4	15	11	23	55	41	83	112	31	17	1665		
ZZ530	County Cost Group	3	3	5	19	36	33	25	4	0	1	0	1	0	0	1	3	1	2	2	1	2	0	141	
ZZ540	County Cost Group	1	1	3	18	34	62	53	6	0	1	2	1	1	0	0	1	0	2	9	2	1	0	258	
ZZ550	County Cost Group	4	5	7	48	110	154	61	9	0	1	2	1	1	0	1	0	1	4	3	1	1	0	474	
ZZ560	County Cost Group	8	8	16	75	114	129	89	21	2	1	6	3	3	3	0	2	1	7	11	11	10	1	523	
ZZ570	County Cost Group	18	9	25	108	153	213	171	22	6	1	7	3	4	0	1	4	4	2	19	12	8	0	746	
ZZ580	County Cost Group	32	27	36	175	269	335	273	48	10	1	6	4	4	0	1	6	5	10	44	21	13	1	1399	
ZZ590	County Cost Group	34	35	42	143	249	300	219	32	6	0	7	2	4	3	2	4	4	16	26	21	9	4	1374	
ZZ600	County Cost Group	36	11	29	95	171	240	213	32	6	0	5	0	6	0	0	3	3	8	24	21	13	0	571	
ZZ510	County Cost Group	41	25	50	212	388	451	336	52	12	1	7	6	4	0	3	5	4	20	59	54	35	4	1371	
ZZ620	County Cost Group	17	17	25	115	173	212	131	17	7	2	0	2	2	0	2	1	3	6	13	22	14	9	1	571
ZZ630	County Cost Group	32	29	52	179	284	394	284	53	11	2	7	4	1	3	0	9	4	15	46	36	23	7	0	1413
ZZ640	County Cost Group	38	40	40	222	304	335	227	48	6	3	4	6	4	13	5	10	6	10	36	33	18	3	0	1411
ZZ650	County Cost Group	27	26	36	166	316	348	211	43	11	4	11	8	11	5	3	14	3	15	43	36	28	5	0	1343
ZZ660	County Cost Group	19	17	25	109	170	218	171	27	2	1	5	3	1	0	1	3	1	14	20	12	7	0	0	825
ZZ670	County Cost Group	21	21	27	119	243	286	219	32	9	1	3	4	8	3	1	10	2	6	38	30	12	3	0	1399

Table N-3 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7	Total
ZZ680	County Cost Group	5	10	11	33	92	106	96	18	5	0	1	3	2	3	1	5	1	2	14	12	8	2	0	428
ZZ690	County Cost Group	6	7	12	27	51	78	55	9	5	1	1	1	2	3	0	2	1	0	11	5	2	1	0	278
ZZ700	County Cost Group	10	13	19	67	105	139	88	15	3	0	1	2	4	0	0	6	1	6	21	12	4	0	0	515
ZZ710	County Cost Group	9	14	15	45	122	144	94	32	8	1	4	0	1	0	0	4	0	4	19	21	9	6	0	550
ZZ720	County Cost Group	1	8	10	30	41	51	43	21	3	0	1	0	0	0	1	5	2	5	22	14	8	0	0	265
ZZ730	County Cost Group	3	9	10	35	74	72	73	10	1	1	3	1	1	3	1	2	0	0	7	7	2	1	0	317
ZZ740	County Cost Group	15	9	9	19	46	80	77	17	7	1	3	2	5	3	0	4	0	0	19	17	11	3	0	347
ZZ750	County Cost Group	9	6	7	37	63	73	41	9	1	0	0	0	2	0	1	1	1	3	5	6	4	1	0	270
ZZ760	County Cost Group	5	2	2	13	24	51	41	7	1	2	4	2	2	3	1	1	1	2	4	7	2	2	0	173
ZZ770	County Cost Group	3	0	4	13	29	27	20	3	0	0	1	1	1	0	0	0	0	1	2	2	1	1	0	109
ZZ780	County Cost Group	3	0	1	1	6	12	12	4	1	0	0	0	2	0	0	0	0	0	1	0	2	1	0	47
ZZ790	County Cost Group	0	4	3	2	12	18	16	4	0	0	1	0	0	0	0	0	0	0	2	1	0	1	0	63
ZZ800	County Cost Group	0	2	3	4	10	16	12	3	0	0	2	0	0	0	0	2	0	0	1	1	0	0	0	59
ZZ810	County Cost Group	2	2	0	0	4	3	2	1	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	16
ZZ820	County Cost Group	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ZZ830	County Cost Group	0	0	1	0	4	5	5	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	14
ZZ840	County Cost Group	0	0	1	4	5	10	6	4	3	0	1	3	0	3	0	2	0	2	2	4	3	0	0	41
ZZ850	County Cost Group	0	1	0	1	2	3	7	1	0	0	0	0	0	0	0	0	0	0	1	0	1	3	0	11
ZZ860	County Cost Group	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
ZZ870	County Cost Group	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
ZZ880	County Cost Group	2	2	1	3	9	11	5	2	0	0	0	0	0	0	0	1	0	0	0	5	0	0	0	39
ZZ890	County Cost Group	4	5	13	47	58	42	18	3	1	0	2	1	0	0	1	1	0	3	4	4	1	0	0	206

Table N-4. 1992 VHA Population: Without-Dependents

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7	Total
AK400	Ketchikan, AK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AK401	Sitka, AK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AK402	Juneau, AK	0	0	0	0	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
AK403	Kodiak Island, AK	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2
AK404	Anchorage, AK	3	7	86	188	186	97	37	11	2	1	1	0	0	3	0	13	18	58	102	36	12	3	0	863
AK405	Fairbanks, AK	0	6	35	89	94	49	22	3	0	4	4	0	1	3	0	4	14	56	64	14	8	0	0	409
AL001	Anniston/Fort McClain, AL	0	0	7	30	37	65	45	4	2	0	1	0	0	3	1	6	6	27	52	12	5	1	0	303
AL002	Fort Rucker, AL	16	66	104	469	288	83	34	14	1	23	30	13	5	13	1	7	114	77	109	14	0	0	0	1482
AL003	Huntsville, AL	1	2	7	20	27	25	20	3	1	0	0	0	0	0	1	0	2	7	49	25	5	1	0	194
AL004	Mobile, AL	1	2	5	11	15	11	7	1	1	0	0	0	0	0	0	1	0	2	2	3	1	0	0	62
AL005	Montgomery, AL	2	6	50	135	102	83	42	11	6	0	1	0	0	1	2	18	17	46	81	90	29	4	0	722
AL006	Auburn, AL	0	0	5	16	30	10	3	0	0	1	0	0	0	3	0	0	5	1	9	0	4	0	0	87
AL007	Birmingham, AL	3	10	26	61	54	39	16	3	1	0	0	0	0	0	1	0	0	8	16	7	2	0	0	247
AL008	Tuscaloosa, AL	1	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	11
AR009	Byrdville AFB, AR	0	5	31	92	40	26	6	2	0	0	0	0	0	0	0	2	12	41	47	8	3	0	0	315
AR010	Little Rock, AR	0	8	57	168	171	93	32	3	1	1	0	1	1	1	0	5	36	70	114	16	6	4	0	788
AR011	Pine Bluff, AR	0	0	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	2	2	0	0	0	0	8
AR012	Fort Chaffee/Fort Smith, AR	1	3	2	4	5	4	7	0	1	0	0	0	0	0	1	0	1	3	2	0	0	1	0	35
AZ013	Phoenix, AZ	4	13	91	361	302	141	46	6	3	0	1	0	1	1	7	6	264	194	183	30	15	3	0	1672
AZ014	Fort Huachuca, AZ	2	5	6	89	111	72	45	7	1	1	5	3	0	23	1	6	19	35	79	21	4	1	0	537
AZ015	Davis Monthan AFB, AZ	1	9	68	260	248	124	38	2	1	0	2	1	2	0	3	7	22	67	101	21	8	2	0	987
AZ016	Yuma, AZ	1	1	31	65	81	38	10	7	4	0	1	0	0	0	1	0	13	27	37	3	2	0	0	320
AZ017	Navajo County, AZ	0	0	0	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
CA018	Oakland, CA	7	52	204	359	284	123	64	11	7	0	5	0	2	8	7	18	65	132	197	87	27	11	0	1672
CA019	San Francisco, CA	3	14	46	86	85	56	28	9	1	0	0	1	1	3	1	3	27	44	110	65	34	5	0	613
CA020	Casle AFB, CA	1	11	41	139	142	57	23	2	0	0	0	0	0	1	2	3	34	28	91	18	3	0	0	546
CA021	China Lake NAVWEPEN, CA	0	0	2	10	28	14	3	3	1	0	0	0	0	0	0	0	0	2	8	1	0	0	0	11
CA022	Fresno, CA	1	0	4	11	21	6	6	0	0	0	0	0	1	0	2	0	0	1	3	1	0	0	0	40



Table N-4 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O4	O5	O6	O7	Ton			
CA023	Lemoore NAS, CA	1	1	17	35	109	57	14	3	2	0	0	0	1	0	1	1	11	29	57	12	6	0	356	
CA024	Camp Pendleton, CA	8	71	707	746	439	216	79	20	8	3	19	1	1	3	16	6	134	300	288	65	16	11	3'88	
CA025	Ventura, CA	7	41	157	400	311	151	41	16	4	0	0	0	2	0	1	4	17	30	88	25	12	1	1306	
CA026	Vandenberg AFB, CA	0	1	2	19	33	28	5	0	0	0	0	0	0	1	5	6	6	17	59	6	3	0	190	
CA027	Marin Sonoma, CA	1	0	2	22	26	23	12	3	1	0	1	0	2	0	0	0	5	3	12	10	7	2	131	
CA028	Bastow Fort Irwin, CA	0	6	7	25	32	9	9	1	0	4	8	0	1	0	0	1	7	11	29	6	3	0	158	
CA029	George AFB, CA	0	4	28	90	109	54	16	2	0	0	0	0	0	1	3	5	18	39	83	15	2	0	467	
CA030	Edwards AFB, CA	0	4	14	49	43	41	15	2	2	0	0	0	0	0	5	5	2	19	66	15	5	1	288	
CA031	San Bernardino, CA	2	6	35	144	201	102	63	7	3	0	0	0	0	0	6	14	39	154	196	36	21	8	1038	
CA032	Twentynine Palms MCB, CA	0	16	96	118	85	44	23	5	2	0	5	0	1	2	5	1	29	90	40	11	4	1	579	
CA033	Beale AFB, CA	1	2	16	59	95	37	19	3	2	0	0	0	0	1	2	3	13	32	72	8	0	0	367	
CA034	Sacramento, CA	2	3	28	133	190	77	50	8	2	0	2	2	0	2	2	10	154	86	167	38	10	2	972	
CA035	Stockton, CA	0	1	27	12	31	17	7	0	0	0	0	0	0	0	0	1	3	0	6	4	2	0	111	
CA036	Vallejo Travis AFB, CA	3	11	65	223	278	207	78	13	6	0	1	1	1	2	13	10	67	134	231	77	23	4	1446	
CA037	Los Angeles, CA	3	40	335	435	393	234	148	23	9	2	18	3	4	9	15	35	195	507	602	137	45	12	3'33	
CA038	San Diego, CA	17	255	1137	2129	2192	1189	474	102	38	1	15	3	4	16	33	60	582	1011	1106	348	94	22	0	12'16
CA039	Monterey, CA	30	78	149	325	211	100	50	15	4	12	18	4	0	5	7	15	81	144	539	84	31	1	0	1'12
CA040	Bakersfield, CA	0	5	15	23	4	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
CA041	Riverside, CA	0	6	41	118	128	65	33	3	1	0	0	0	0	1	5	5	22	53	94	25	13	2	0	0
CA042	Humboldt County, CA	0	1	7	12	18	8	2	0	0	0	0	0	0	0	0	0	0	3	0	2	0	0	0	0
CA044	Santa Clara County, CA	2	25	214	363	373	186	44	12	2	0	0	0	0	0	5	7	35	159	170	40	10	1	0	0
CA392	San Luis Obispo, CA	1	0	1	5	5	3	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0
CA393	Redgeport, CA	0	0	1	2	0	2	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
CO045	Denver, CO	5	12	59	277	291	139	64	11	6	1	1	3	1	2	1	14	29	42	124	58	24	10	0	1173
CO046	Colorado Springs, CO	9	66	172	589	424	225	115	14	5	13	14	3	2	12	23	39	181	312	585	136	27	9	0	2974
CO047	Fort Collins, CO	0	0	4	2	2	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
CO048	La Junta/Rocky Ford, CO	0	0	6	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CT049	New London, CT	0	23	97	194	294	192	66	11	4	0	1	0	2	4	2	6	56	130	103	25	6	0	0	12'4
CT050	Hartford, CT	0	2	5	292	98	40	9	3	1	0	0	0	1	1	0	0	104	19	14	4	1	0	0	5'2

Table N-4 Continued

MHA	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7	Total
CT051 New Haven/Fairfield, CT	1	6	15	32	32	28	16	0	0	0	0	0	0	0	0	0	1	5	6	4	0	0	0	144
DC053 Washington, DC Metro Area	9	62	466	1300	1359	1117	560	141	52	8	29	16	13	28	32	101	627	444	1759	1208	654	213	11	10207
DE054 Dover AFB, DE	0	4	22	122	135	69	29	3	1	0	0	0	0	0	2	2	20	20	49	10	2	0	0	489
DE055 Rehoboth Beach, DE	0	1	6	13	11	3	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	37
FL056 Eglin AFB, FL	0	19	125	552	557	227	79	7	9	0	0	1	0	2	6	19	75	168	304	60	20	6	0	2237
FL057 Gainsville, FL	1	2	10	9	8	4	4	0	0	0	0	0	0	0	0	0	2	2	12	3	1	0	0	58
FL058 Jacksonville, FL	9	91	511	883	1109	514	178	39	11	0	5	1	2	7	13	21	146	417	407	93	32	6	0	4405
FL059 Patrick AFB, FL	1	1	7	38	69	52	24	6	0	0	0	0	0	1	2	8	14	24	68	13	6	2	0	335
FL060 Merr., FL	0	8	49	119	109	66	29	5	2	1	2	0	0	0	7	5	25	59	64	24	2	5	0	583
FL061 Fort Lauderdale, FL	0	3	5	23	13	10	7	0	1	0	0	0	1	0	1	0	0	3	2	1	0	0	0	71
FL062 Orlando, FL	5	14	94	156	191	173	50	6	8	1	5	1	1	8	1	4	517	55	50	16	8	3	0	1366
FL063 Panama City, FL	0	11	27	113	127	83	28	8	2	0	0	0	0	4	5	3	121	67	98	19	9	4	0	730
FL064 Pensacola, FL	1	17	99	206	322	187	54	16	5	0	2	2	0	25	3	15	1740	203	280	37	22	4	0	3238
FL065 Tallahassee, FL	4	6	16	45	14	7	3	0	0	0	0	0	0	0	1	2	12	4	8	1	0	0	0	122
FL066 Tampa, FL	3	4	51	226	265	126	43	12	3	0	1	1	1	4	0	8	52	48	113	63	37	2	2	1064
FL067 West Palm Beach, FL	1	2	2	18	11	4	6	2	0	0	0	0	0	0	0	0	0	2	6	2	0	0	0	55
FL068 Astor, FL	1	3	9	34	18	6	2	0	0	0	0	0	0	0	1	0	1	2	2	0	0	0	0	79
FL069 Key West, FL	0	3	44	92	91	38	9	3	1	0	0	0	0	0	0	3	8	9	30	10	3	1	0	345
FL070 Volusia County, FL	1	0	1	1	4	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	9
FL328 Avon Park/Sebring, FL	0	0	0	2	5	2	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	10
FL397 Polk County, FL	1	2	11	32	11	6	2	0	0	0	1	0	0	3	1	0	1	0	0	0	0	0	0	70
GA071 Atlanta, GA	10	61	180	348	279	131	63	19	6	1	5	3	2	5	5	1	15	25	88	71	32	14	0	1361
GA072 Albany, GA	0	0	2	12	9	9	5	1	0	0	1	0	0	0	1	0	1	2	5	1	1	0	0	50
GA073 Fort Gordon, GA	1	9	23	100	75	64	49	8	2	0	0	1	0	10	1	8	11	35	102	25	14	7	0	545
GA074 Kings Bay/Brunswick, GA	0	4	32	52	124	104	26	6	5	0	0	0	0	0	2	3	2	20	14	7	0	1	0	399
GA075 Fort Benning, GA	8	13	31	164	97	81	63	3	3	1	3	1	1	15	3	11	94	106	149	22	6	1	0	876
GA076 Robins AFB, GA	1	4	25	99	103	49	19	10	1	0	0	0	0	1	3	6	22	36	63	12	4	2	0	459
GA077 Savannah, GA	0	2	12	59	50	33	24	1	0	8	16	3	3	0	0	1	5	26	34	3	1	1	0	281
GA078 Athens, GA	0	1	1	8	7	1	1	0	0	0	0	0	0	0	1	1	124	21	8	3	1	0	0	183

Table N-4 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7	Total
GA079	Dahonega, GA	0	0	0	0	2	2	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	7
GA080	Fort Stewart, GA	3	15	32	168	95	66	32	6	0	4	1	1	0	0	3	3	47	91	115	14	7	1	0	704
GA081	Moody AFB, GA	0	6	43	196	117	33	11	1	1	0	0	0	0	0	3	2	8	36	46	5	3	0	0	512
HI408	Honolulu County, HI	3	48	267	1016	1092	576	239	50	22	7	23	6	8	17	20	56	199	486	658	211	87	34	0	5124
HI409	Hawaii County, HI	0	0	0	4	5	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
IA082	Des Moines, IA	1	6	12	48	40	18	8	4	0	0	0	0	0	0	0	1	3	0	0	4	0	0	0	143
IA083	Ames, IA	0	0	0	8	4	2	2	0	0	1	0	1	0	0	0	0	3	2	3	0	1	0	0	28
ID084	Boise, ID	0	3	4	18	27	17	5	3	0	1	1	0	0	0	0	0	0	1	2	1	0	1	0	84
ID085	Kaho Falls, ID	0	1	4	500	135	27	4	0	1	0	0	0	0	1	0	0	159	1	8	1	0	0	0	841
ID086	Mountain Home AFB, ID	0	0	6	40	49	33	10	2	0	0	0	0	0	0	2	4	14	29	41	4	6	0	0	240
ID087	Pocatello, ID	0	0	1	1	4	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
ID333	Moscow, ID/Pullman, WA	0	0	4	3	4	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
IL088	Chanute AFB, IL	0	1	17	32	54	27	13	2	1	0	0	0	0	0	0	2	7	8	26	6	5	1	0	202
IL089	Rock Island, IL	1	1	1	10	13	7	2	0	0	0	0	0	0	0	0	0	0	0	2	4	3	1	0	43
IL090	Peoria, IL	1	2	9	42	18	10	3	0	0	0	0	0	0	0	1	0	0	2	2	1	0	0	0	92
IL092	Great Lakes NAVTRACEN, IL	6	57	131	216	264	221	76	10	5	0	2	1	4	3	2	7	5	18	95	41	19	3	0	1205
IL093	Scott AFB, IL	4	17	108	353	213	98	61	23	9	1	0	0	0	1	6	24	42	78	208	82	41	6	0	1371
IL325	Chicago, IL	2	19	25	94	115	59	28	4	1	0	1	1	0	0	3	3	5	6	32	12	6	0	0	419
IL335	Springfield-Decatur, IL	0	2	9	16	23	11	5	1	0	0	0	0	0	0	0	0	0	2	2	2	0	0	0	72
IL363	Winnebago, IL	0	1	2	8	10	6	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	2	0	33
IL366	Joint Army Depot, IL	0	1	9	6	6	4	2	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	30
IN094	Indianapolis-Fort Harrison, IN	2	29	61	225	108	68	56	11	7	0	2	1	0	3	2	8	13	25	51	18	6	1	0	638
IN095	Grisson AFB, IN	0	1	13	43	38	20	10	1	1	0	0	0	0	0	0	2	11	31	36	3	2	0	0	212
IN096	Lafayette, IN	0	2	3	6	4	3	3	0	0	0	0	0	0	0	0	0	5	3	10	0	0	0	0	39
IN097	Fort Wayne, IN	0	2	2	5	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26
IN099	South Bend, IN	0	1	2	4	7	5	1	0	0	0	0	0	0	0	0	0	0	0	5	2	0	0	0	17
IN337	Evansville, IN	0	6	22	6	8	3	1	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	50
IN338	Terre Haute, IN	0	1	3	3	5	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
IN367	Gary, IN	2	8	19	52	28	9	5	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	123

Table N-4 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O4	O5	O6	O7	Total		
NC399	Bloomington, IN	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	4		
KS100	Fort Riley, KS	0	8	24	119	86	47	38	7	1	13	12	1	0	8	1	2	52	70	100	21	4	615	
KS101	Wichita/McConnell AFB, KS	1	10	28	124	105	55	17	2	0	0	0	1	0	0	0	1	19	35	40	6	1	445	
KS102	Fort Leavenworth, KS	0	0	1	17	17	7	12	2	0	0	0	0	0	0	1	0	1	0	58	159	19	0	294
KS104	Lawrence, KS	0	0	1	2	4	1	0	0	0	0	0	0	0	0	0	0	1	0	5	0	2	19	
KS105	Topeka, KS	2	6	11	73	37	14	7	0	0	0	1	0	0	0	0	1	3	3	7	4	7	1	177
KY106	Fort Campbell, KY	9	53	103	440	243	102	76	16	4	20	55	7	5	28	3	4	68	154	183	33	9	5	1620
KY107	Lexington, KY	0	2	25	7	9	5	1	0	0	0	0	1	0	0	0	1	0	1	5	1	0	0	57
KY109	Louisville, KY	3	7	16	52	39	17	6	2	1	1	1	0	0	0	0	1	1	5	13	5	3	0	171
KY110	Fort Knox, KY	1	10	27	137	72	68	32	8	2	1	3	1	1	8	0	5	31	58	79	19	11	3	575
LA113	England AFB, LA	2	4	20	102	88	43	16	3	1	0	1	0	0	0	0	2	9	51	32	3	1	0	376
LA114	Baton Rouge, LA	0	3	11	26	20	10	6	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	80
LA115	Fort Polk, LA	45	132	214	774	341	136	53	3	1	5	10	1	0	10	1	6	58	102	90	23	6	1	2013
LA116	New Orleans, LA	6	36	142	271	281	177	81	9	8	1	1	2	0	3	2	5	21	28	69	29	20	6	1199
LA117	Shreveport/Barksdale AFB, LA	8	30	90	275	229	94	35	11	3	0	1	0	0	0	3	5	29	94	125	15	6	1	1053
LA118	Lafayette, LA	0	7	9	32	26	8	0	0	0	0	0	0	0	0	0	0	2	1	1	0	1	0	87
LA326	St Mary and Terrebonne, LA	0	0	1	2	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
LA370	Lake Charles, LA	2	21	16	34	20	8	2	0	0	1	0	0	0	0	0	0	0	5	2	0	0	0	111
LA371	Monroe, LA	0	0	1	9	6	3	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	23
MA120	Boston, MA	0	0	19	27	35	29	15	3	2	0	1	1	0	1	1	3	28	12	50	17	5	3	252
MA121	Cape Cod, MA	0	1	25	18	20	16	5	0	1	0	1	0	0	0	1	1	0	1	3	1	0	0	96
MA122	Worcester, MA	0	1	24	19	10	7	5	1	0	0	0	0	0	0	0	0	0	0	2	1	0	0	70
MA123	Fort Devens/Ayer, MA	2	23	34	143	100	60	44	4	2	1	4	1	1	0	0	2	4	16	38	7	7	2	483
MA124	Brockton/S Weymouth, MA	1	13	40	100	103	53	14	0	0	0	0	0	0	0	0	0	2	2	6	3	2	0	339
MA125	Essex Co, MA	0	1	2	1	6	1	2	0	0	0	0	0	0	0	0	1	0	0	2	1	0	0	16
MA126	Hampden County, MA	0	2	11	51	118	69	13	2	2	0	0	0	0	0	2	1	1	4	4	5	1	0	286
MA377	Hanscomb AFB, MA	1	4	26	54	40	17	8	3	0	0	1	0	0	0	3	12	34	146	175	22	12	2	509
MD127	Aberdeen Proving Grounds, MD	1	0	0	17	23	25	17	5	0	0	4	1	2	0	1	1	4	19	58	15	7	1	202
MD128	Annapolis, MD	0	3	18	25	44	20	6	2	1	0	0	1	0	0	0	2	23	12	56	21	3	3	237

Table N-4 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7	Total
MD129	Baltimore, MD	0	3	10	44	53	35	34	4	0	1	0	0	0	0	0	1	1	9	32	24	5	3	0	264
MD130	Fort Detrick, MD	0	1	5	34	24	13	4	1	0	0	0	1	0	0	1	1	0	2	19	4	5	2	0	117
MD131	Fort Riche, MD	0	0	1	27	23	14	5	3	0	0	0	1	1	0	0	0	1	3	7	5	1	0	0	92
MD133	Fort G. G. Meade, MD	15	55	83	388	338	177	83	22	8	1	14	4	4	6	3	6	31	63	146	39	20	3	0	1510
MD134	Indian Head NAVORDSTA, MD	0	0	1	6	9	8	8	1	1	0	0	0	0	0	0	1	0	2	10	0	1	0	0	48
MD135	Patuxent River, MD	0	4	29	138	232	93	26	5	1	0	0	0	0	0	1	2	5	19	74	17	1	2	0	647
ME136	Brunswick, ME	0	3	97	181	209	123	42	7	3	0	1	2	0	0	2	5	8	66	57	9	5	1	0	820
ME137	Long AFB, ME	0	5	9	41	47	22	6	0	1	0	0	0	0	0	2	0	0	47	43	6	2	0	0	232
ME139	Portland, ME	0	0	1	1	4	2	3	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	13
ME140	Bar Harbor, ME	0	0	1	18	31	13	4	0	0	0	0	0	0	0	0	0	9	0	1	0	0	0	0	77
ME390	Bangor, ME	0	0	6	12	19	11	3	0	0	0	1	1	1	0	2	0	0	3	7	1	2	0	0	69
MI142	Detroit, MI	4	27	52	126	153	56	40	5	2	0	0	0	0	1	0	3	6	17	50	21	2	1	0	568
MI143	K1 Sawyer AFB, MI	0	5	37	166	83	40	12	1	0	0	0	0	0	0	0	1	19	49	60	7	2	0	0	483
MI145	Sault Ste Marie, MI	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
MI146	Traverse City, MI	0	1	6	8	6	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	24
MI148	Muskegon, MI	1	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	5
MI149	Port Huron, MI	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
MI150	Wurtsmith AFB, MI	0	7	27	61	36	27	12	3	0	0	0	0	0	1	0	0	9	60	52	7	1	0	0	303
MI152	Battle Creek/Kalamazoo, MI	1	0	6	3	8	6	2	0	1	0	0	0	0	0	0	0	0	0	5	1	1	0	0	33
MI153	Lansing, MI	1	1	3	11	9	18	4	1	1	0	0	0	1	0	0	0	0	2	4	3	1	0	0	58
MI154	Grand Rapids, MI	0	0	9	7	10	9	2	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	39
MI155	Ann Arbor, MI	0	0	6	0	4	4	2	2	0	0	1	0	0	0	0	0	3	0	5	1	0	0	0	28
MI156	Saginaw, MI	1	0	1	3	4	2	1	0	0	0	0	0	0	0	1	0	0	0	4	0	0	0	0	16
MD41	Flint, MI	1	1	0	0	2	1	2	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	8
MI158	Duluth, MN	0	0	4	23	24	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58
MI159	Minneapolis/St Paul, MN	0	7	32	86	73	53	30	5	0	2	0	1	2	0	0	2	6	13	27	6	6	2	0	362
MO160	Kansas City, MO	1	8	26	79	87	49	6	3	4	0	0	1	1	0	1	0	1	10	18	6	1	0	0	304
MO161	St Louis, MO	2	14	73	62	66	58	42	8	2	0	1	1	1	0	0	5	2	6	35	25	12	2	0	418
MO162	Whiteman AFB, MO	0	1	32	90	67	33	12	2	0	0	0	0	0	1	0	6	55	77	52	6	1	0	0	435

Table N-4 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7	Total
MO163	Fort Leonard Wood, MO	16	33	42	152	68	48	36	7	4	1	0	1	1	3	1	2	4	39	50	18	6	2	0	533
MO164	Springfield, MO	0	0	16	17	8	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	48
MO165	Columbia/Jefferson City, MO	0	1	1	13	14	7	7	0	0	0	0	0	0	1	0	0	0	2	5	2	1	1	0	53
MS163	Gulfport, MS	0	15	63	170	207	131	45	9	2	0	0	0	0	1	0	7	53	104	196	47	15	8	0	1075
MS169	Columbus AFB, MS	0	0	5	15	15	10	4	3	0	0	0	0	0	1	3	0	128	111	61	5	3	0	0	363
MS170	Jackson, MS	0	5	10	23	37	28	11	2	0	0	1	1	1	0	0	0	42	72	33	2	1	0	0	147
MS171	Menden, MS	1	1	1	12	30	21	3	2	0	0	0	0	0	0	0	0	0	2	2	0	1	0	0	221
MS172	Hattiesburg, MS	0	0	0	1	4	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26
MT175	Malstrom AFB/Great Falls, MT	0	6	45	69	75	38	12	3	1	0	0	0	0	1	0	3	60	91	77	5	1	0	0	487
NC177	Morehead/Cherry Pt MCAS, NC	1	2	62	123	118	63	29	5	2	1	12	1	1	1	7	0	36	85	72	17	1	1	0	638
NC178	Camp Lejeune, NC	15	112	765	679	329	146	48	24	9	3	7	1	0	4	15	9	122	274	192	50	11	6	0	2821
NC179	Charlotte, NC	0	2	11	35	27	15	8	1	0	0	0	0	0	0	1	1	1	7	8	4	0	0	0	120
NC180	Durham/Chapel Hill, NC	0	0	1	7	6	5	1	0	0	0	0	0	0	0	0	1	0	4	13	7	7	2	0	54
NC181	Elizabeth City, NC	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
NC182	Fort Bragg/Pope AFB, NC	17	76	220	856	641	433	261	39	9	20	36	10	0	33	7	16	147	378	552	108	31	5	1	3895
NC183	Seymour Johnson AFB, NC	2	4	29	137	145	67	23	7	1	0	0	0	0	1	2	1	24	49	75	16	4	0	0	586
NC184	Greensboro, NC	1	3	4	28	19	16	9	0	0	0	0	1	0	3	0	0	1	7	7	5	5	1	0	109
NC185	Raleigh, NC	1	0	28	28	20	18	5	1	1	0	0	0	0	0	0	0	2	5	10	6	0	0	0	123
NC186	Wilmington, NC	0	0	14	12	10	4	1	0	0	0	0	0	0	0	0	0	0	1	4	6	1	1	0	54
ND188	Bismarck, ND	0	1	3	19	14	2	2	0	1	0	0	0	0	3	0	0	1	1	0	1	0	0	0	48
ND189	Fargo, ND	0	0	3	13	19	7	3	1	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	48
ND190	Grand Forks, ND	1	1	28	75	85	49	17	3	0	0	0	0	0	2	0	5	49	76	65	7	1	1	0	456
ND191	Minot AFB, ND	1	2	29	101	110	42	17	1	0	0	0	0	0	0	0	4	54	113	90	9	0	0	0	574
NE192	Omaha/Offutt AFB, NE	1	29	197	847	487	216	97	14	6	0	0	0	0	2	11	24	50	170	283	88	37	6	0	2565
NE193	Lincoln, NE	0	1	7	10	10	10	5	3	0	0	1	1	1	0	0	0	0	2	5	1	0	0	0	55
NH194	Portsmouth, NH/Kittery, ME	3	2	4	15	28	18	12	1	0	0	0	0	0	2	0	2	2	15	11	5	2	0	0	121
NH195	Manchester/Concord, NH	1	1	4	10	12	10	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	41
NJ196	Atlantic City, NJ	0	0	3	4	8	5	3	0	0	0	0	0	1	0	0	0	0	0	1	0	2	0	0	27
NJ198	Cape May, NJ	0	1	1	12	3	2	1	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	22

Table N-4 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7	Total
NJ200	Fort Monmouth/Earle NWS, NJ	1	5	39	49	25	18	10	3	2	0	0	0	0	0	1	1	8	26	47	16	3	1	0	254
NJ201	Perth Amboy, NJ	1	2	13	19	29	16	10	0	1	0	0	0	0	0	0	0	2	0	8	12	2	1	0	116
NJ202	Northern New Jersey	2	2	11	35	39	31	11	3	0	0	0	0	0	0	1	1	0	8	22	8	1	1	0	174
NJ203	Trenton, NJ	0	1	3	10	9	13	15	3	0	0	0	0	0	0	0	0	1	6	9	1	0	0	0	70
NJ204	Fort Dix/McGuire/Lakehurst, NJ	20	80	105	340	271	144	53	5	6	0	2	0	0	1	8	7	31	125	160	42	20	3	0	1422
NM205	Holloman AFB/Alamogordo, NM	0	10	46	162	157	67	25	5	1	0	0	0	0	3	5	4	28	65	83	10	3	0	0	673
NM206	Albuquerque/Kirtland AFB, NM	2	4	29	73	106	70	26	6	2	0	0	0	0	2	2	12	28	49	136	34	12	1	0	594
NM207	Cannon AFB/Clovis, NM	1	4	51	109	136	54	21	1	1	0	0	0	0	0	2	3	32	47	63	6	0	0	0	530
NM208	Gallop, NM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NM209	White Sands MRL/Las Cruces, NM	0	0	0	3	1	4	0	0	2	0	0	1	0	0	0	0	0	0	6	0	0	0	0	17
NM210	Santa Fe/Los Alamos, NM	0	0	0	0	2	4	1	1	1	0	0	0	1	0	0	0	0	0	1	2	0	0	0	13
NV211	Fallon NAS, NV	1	1	7	14	22	27	6	2	1	0	0	0	0	0	0	0	2	2	14	6	2	0	0	106
NV212	Nellis AFB/Las Vegas, NV	1	11	56	561	397	174	68	7	3	0	0	0	0	0	8	8	30	41	147	25	10	6	0	1552
NV213	Carson City, NV	0	2	2	8	12	11	7	0	0	0	0	0	0	0	0	1	0	1	8	2	1	0	0	55
NY215	Ballston Spa/Albany, NY	4	4	17	278	210	68	21	3	2	0	0	0	0	1	0	4	77	17	23	10	2	0	0	740
NY216	Buffalo, NY	1	8	15	27	40	24	7	1	1	0	0	0	0	0	2	0	0	12	14	7	2	0	0	160
NY217	West Point, NY	0	2	2	15	32	37	12	3	0	1	2	1	1	0	2	3	1	4	36	23	6	0	0	181
NY218	Long Island, NY	1	13	50	42	34	26	10	2	0	0	0	0	0	0	0	1	1	9	17	5	4	2	0	218
NY219	New York City, NY	8	27	62	153	107	47	14	3	1	0	1	0	1	3	0	1	6	11	39	15	5	1	0	505
NY220	Plattsburgh, NY	1	3	17	71	62	26	12	0	0	0	0	0	0	0	0	2	8	34	50	7	1	0	0	294
NY221	Rochester, NY	0	2	19	14	19	9	8	0	0	0	0	0	0	0	1	0	2	4	7	0	0	0	0	85
NY222	Rome/Griffiss AFB, NY	1	6	59	264	134	53	17	4	1	5	5	0	0	0	0	5	29	64	110	10	4	1	0	793
NY223	Seneca Army Depot/Syracuse, NY	0	1	8	36	35	25	15	3	1	0	0	0	0	0	0	0	0	9	18	4	0	0	0	155
NY225	Fort Drum/Watertown, NY	1	2	13	20	30	18	17	3	1	7	7	0	1	0	1	2	39	81	58	11	3	0	0	316
NY226	Binghamton/Itasca, NY	0	0	2	1	1	3	2	0	0	0	0	0	0	0	0	0	0	1	9	0	0	0	0	19
NY349	Westchester County, NY	1	0	8	7	4	7	0	0	0	0	0	0	0	0	0	0	0	0	4	2	1	0	0	33
NY355	Jamestown, NY	0	1	1	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	8
OH227	Akron, OH	1	1	4	17	21	19	8	1	0	0	0	0	1	0	0	1	1	0	2	0	1	0	0	77
OH228	Cincinnati, OH	0	4	6	15	20	17	7	0	0	0	0	0	0	1	0	2	1	3	10	1	0	0	0	86

Table N-4 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7	Total
OH229	Cleveland, OH	1	4	20	20	39	18	8	3	0	1	2	1	1	1	0	0	3	5	13	8	0	0	0	148
OH230	Columbus, OH	3	10	40	105	104	72	26	4	2	0	1	1	0	3	1	2	8	12	17	17	10	2	0	439
OH231	Wright Patterson AFB, OH	3	25	204	411	242	118	36	5	2	0	1	0	0	4	11	51	172	448	589	104	79	16	0	2470
OH232	Toledo, OH	0	2	7	10	14	12	6	1	0	0	0	0	1	0	0	0	0	0	2	3	0	0	0	57
OH233	Youngstown, OH	1	3	4	46	42	13	4	0	0	0	0	0	0	0	0	0	1	1	4	1	0	0	0	119
OH382	Mansfield, OH	1	2	2	14	12	4	1	1	0	0	0	0	0	0	2	0	0	1	1	0	0	0	0	40
OK235	Altus AFB, OK	0	5	67	137	86	45	19	6	2	0	0	0	0	0	2	1	18	35	35	5	2	0	0	464
OK236	Vance AFB/End, OK	0	2	4	5	5	4	2	1	0	0	0	0	0	0	0	0	62	99	44	1	2	0	0	232
OK237	Fort Sill/Lawton, OK	6	38	102	377	181	75	49	7	1	1	5	1	2	8	4	2	24	58	108	23	10	2	0	1081
OK239	Oklahoma City, OK	2	26	237	567	295	98	50	8	4	0	0	0	0	2	14	12	91	166	226	27	10	1	0	1838
OK240	Tulsa, OK	1	5	47	22	17	12	2	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0	111
OR241	Astoria, OR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	3
OR242	Coos Bay, OR	0	0	0	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
OR243	Portland, OR	0	8	9	37	49	30	16	3	1	0	2	1	0	0	0	3	3	7	8	10	3	0	0	188
OR244	Salem, OR	0	0	3	8	5	6	2	1	0	0	0	1	1	0	0	0	0	0	1	0	2	0	0	29
OR245	Corvallis, OR	0	1	2	2	6	3	1	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	20
OR246	Eugene, OR	0	1	4	6	5	2	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	19
PA247	Carlisle Barracks, PA	1	2	28	90	55	44	22	4	4	0	2	2	2	5	1	0	3	10	16	5	11	2	0	306
PA248	Philadelphia, PA/Camden, NJ	4	12	87	155	153	75	44	6	3	0	1	0	0	3	3	4	23	55	88	52	18	6	0	791
PA249	NAS Willow Grove, PA	0	3	26	66	127	57	24	3	1	1	0	0	0	0	0	3	8	3	24	14	2	1	0	362
PA250	Pittsburgh, PA	2	6	23	41	55	37	15	4	0	0	0	0	0	0	1	1	20	9	25	6	6	0	0	250
PA251	Reading, PA	1	5	42	30	9	4	4	0	0	0	0	0	0	0	0	1	0	0	3	0	0	0	0	93
PA252	State College, PA	0	0	5	2	3	1	1	0	0	0	0	0	0	0	0	1	13	1	11	1	0	0	0	40
PA253	Erie, PA	0	1	3	4	4	4	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	17
PA254	Winans Barre/Scranton, PA	0	3	12	69	36	22	10	0	1	1	0	0	1	0	0	0	2	8	11	4	1	1	0	181
PA255	Allentown/Bethlehem, PA	0	1	5	5	9	9	1	2	0	0	0	0	0	0	0	0	0	1	3	1	1	0	0	37
PA380	Lafayette Army Depot, PA	0	1	0	1	0	0	2	1	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	8
PA383	Johnstown, PA	0	1	2	0	3	2	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	9
RI256	Newport, RI	0	4	25	41	93	52	29	6	6	0	0	0	1	4	2	5	227	87	121	59	31	8	0	800



Table N-4 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7	Total
RU257	Providence, RI	0	12	32	64	66	26	12	0	2	0	2	1	0	0	0	2	3	7	17	3	1	0	0	250
SC258	Beaufort/Parris Island, SC	3	21	117	116	96	59	16	2	1	1	3	0	0	1	5	0	8	31	76	12	1	1	0	570
SC259	Charleston, SC	5	29	178	650	656	329	133	26	12	0	1	0	2	3	9	18	150	363	249	78	21	6	0	2916
SC260	Columbia/Fort Jackson, SC	14	46	68	231	151	84	48	6	0	1	2	2	0	3	2	2	7	30	65	21	7	3	0	793
SC261	Greenville, SC	1	3	42	30	29	6	6	1	0	1	0	0	0	3	0	0	0	0	2	1	0	0	0	124
SC262	Myrtle Beach AFB, SC	0	4	21	113	108	33	13	2	2	0	0	0	0	1	2	2	14	40	52	6	2	1	0	415
SC263	Sumter/Shaw AFB, SC	0	8	37	117	131	57	23	2	1	0	0	0	0	1	2	4	29	85	99	11	5	0	0	613
SO264	Rapid City/Ellsworth AFB, SD	3	12	82	428	193	85	32	2	1	0	0	0	0	2	6	8	58	132	102	11	3	0	0	1160
SO265	Sioux Falls, SD	0	0	0	3	7	5	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	18
TN266	Chattanooga, TN	1	3	19	36	23	15	3	4	0	0	0	0	0	0	0	0	2	4	4	5	3	0	0	122
TN267	Knoxville, TN	3	4	7	10	18	17	9	1	0	0	1	0	0	0	0	0	2	7	13	2	0	0	0	93
TN268	Memphis, TN	5	23	91	150	227	132	42	7	8	0	0	1	0	1	2	9	6	10	23	16	7	2	0	761
TN269	Nashville, TN	2	5	38	53	44	31	14	1	0	0	0	1	0	3	1	0	5	5	18	8	3	0	0	230
TN353	Johnson City/Kingsport, TN	4	3	33	20	11	3	3	1	0	0	0	0	0	0	0	0	2	3	0	0	0	0	0	82
TN354	Manchester/Tulahoma, TN	0	0	0	1	1	2	1	0	0	0	0	0	0	0	0	2	0	5	7	1	0	0	0	20
TX270	Abilene/Dyess AFB, TX	0	6	44	125	89	52	12	2	1	0	0	0	0	1	0	5	28	68	89	11	2	0	0	534
TX271	Amarillo, TX	0	0	1	4	4	3	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	14
TX272	Austin/Bergstrom AFB, TX	0	3	30	129	121	80	29	3	2	0	2	1	1	1	2	6	21	40	84	20	6	0	0	581
TX273	Beaumont, TX	0	0	1	0	6	1	4	0	0	0	0	1	0	0	0	0	0	0	4	0	1	0	0	17
TX274	College Station, TX	0	0	5	1	8	2	3	0	0	0	0	0	0	0	0	1	9	1	6	4	0	0	0	41
TX275	Corpus Christi, TX	0	1	12	41	63	26	12	0	1	0	0	0	1	4	4	0	269	69	62	11	5	1	0	582
TX276	Kingsville, TX	0	0	7	13	37	17	4	1	1	0	0	0	0	2	0	0	58	80	38	5	0	0	0	255
TX277	Dallas, TX	4	4	37	102	142	91	46	7	2	1	1	1	2	0	1	2	0	18	35	25	10	4	0	533
TX278	Laughlin AFB/Del Rio, TX	0	0	3	18	22	12	2	0	1	0	0	0	0	1	2	1	148	123	85	3	0	0	0	419
TX279	El Paso, TX	3	11	29	117	129	89	65	21	14	10	18	7	0	13	1	4	64	87	166	45	19	5	0	914
TX280	Galveston, TX	1	0	2	7	3	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	17
TX281	Brownsville, TX	1	0	1	3	4	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2
TX282	Houston, TX	4	18	194	149	74	32	14	2	1	0	0	3	0	0	0	1	3	8	26	20	3	3	0	552
TX283	Lubbock/Reese AFB, TX	1	2	17	33	29	12	8	2	0	0	0	0	0	1	0	3	197	106	71	2	3	0	0	488

Table N-4 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7	Total
TX284	Goodfellow AFB, TX	3	12	58	75	94	58	34	2	1	0	0	1	0	1	0	2	14	11	18	3	0	0	0	386
TX285	San Antonio, TX	7	49	285	1016	881	483	238	43	19	1	4	2	2	17	19	67	155	318	832	259	134	44	0	4873
TX286	Fort Hood, TX	21	74	155	524	350	197	141	21	8	27	42	8	8	8	13	9	102	258	270	76	28	4	0	2343
TX287	Texarkana, TX	0	1	9	8	4	2	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	27
TX288	Wichita Falls/Sheppard AFB, TX	0	1	53	99	103	52	19	2	2	0	0	0	0	3	5	3	134	48	89	13	7	5	0	F22
TX289	Beeville, TX	0	0	3	7	17	11	0	0	0	0	0	0	0	4	0	0	64	86	34	1	1	0	0	227
TX356	Fort Worth, TX	1	13	48	236	160	55	24	5	3	0	0	0	0	2	3	5	32	95	105	24	3	5	0	820
UT291	Ogden/Hill AFB, UT	0	8	39	140	150	78	29	4	0	0	0	1	0	1	2	5	31	42	74	12	2	1	0	620
UT292	Salt Lake City, UT	4	2	13	47	52	28	18	2	0	0	0	0	1	0	1	2	6	4	7	10	3	2	0	202
UT357	Provo, UT	0	0	0	4	1	2	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	11
VA295	Charlottesville, VA	0	0	2	0	1	1	1	0	0	0	0	0	0	0	0	1	0	2	16	9	1	0	0	36
VA296	Quantico/Woodbridge, VA	1	1	36	128	93	55	24	9	1	2	4	0	0	1	3	0	36	13	103	45	6	2	0	565
VA297	Hampton/Newport News, VA	3	30	105	603	583	258	154	27	11	4	9	3	5	1	8	29	60	149	327	107	33	12	0	2520
VA298	Norfolk/Portsmouth, VA	22	257	1172	2047	2243	1187	523	119	46	0	20	9	1	21	24	77	397	1042	889	316	101	18	0	10532
VA300	Petersburg/Fort Lee, VA	1	16	16	61	45	43	37	10	1	0	0	1	0	3	2	1	4	13	79	10	5	2	0	349
VA301	Richmond, VA	2	16	56	49	46	18	16	1	0	1	2	1	0	3	0	3	1	13	15	9	11	0	0	261
VA302	Warrenton/Vint Hill Farm, VA	0	0	2	12	11	9	8	0	0	0	3	0	0	0	0	1	1	3	6	4	0	0	0	59
VA303	Lexington, VA	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	4
VA304	Wallops Island, VA	0	0	0	0	1	7	2	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	12
VA362	Roanoke, VA	0	0	3	2	3	5	1	0	0	0	0	0	0	0	0	0	1	1	6	1	0	0	0	24
VA368	Camp A.P. Hill, VA	0	0	2	4	10	15	5	2	0	0	0	1	0	0	0	0	3	2	16	4	1	0	0	64
VT305	Burlington, VT	0	0	1	8	16	14	7	0	0	0	0	1	0	0	0	0	0	2	4	1	0	0	0	54
WA306	Bremerton, WA	1	17	70	132	222	149	53	13	2	0	2	1	0	2	4	8	18	111	82	26	10	2	0	923
WA307	Everett, WA	1	1	1	2	2	1	1	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	10
WA308	Port Angeles, WA	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
WA309	Seattle, WA	0	3	15	50	78	47	26	4	1	0	0	1	0	1	1	3	10	8	38	25	7	0	0	317
WA310	Spokane, WA	1	2	41	89	60	53	18	2	2	0	0	0	0	1	3	2	21	89	79	7	3	0	0	472
WA311	Tacoma, WA	20	43	85	350	344	186	121	27	7	3	11	1	1	5	1	18	90	200	299	93	32	7	0	1945
WA312	Whidbey Island, WA	1	12	171	285	300	102	27	3	3	0	1	1	0	0	3	2	27	151	128	14	4	0	0	1235

Table N-4 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7	Total
WA313	Yakima, WA	0	5	32	14	12	2	3	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	70
WA315	Aberdeen, WA	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
WI316	Madison, WI	6	17	49	97	70	32	10	5	0	0	0	0	0	0	0	2	6	8	12	10	4	3	0	330
WI317	Milwaukee, WI	2	11	22	58	77	45	16	1	1	0	0	0	1	0	2	0	1	9	13	6	2	0	0	267
WI318	Sparta/Fort McCoy, WI	1	15	30	238	93	31	11	3	0	0	3	0	0	0	0	0	4	9	5	7	1	2	0	451
WI319	Oshkosh/Appleton, WI	0	0	3	31	13	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	54
WI358	Green Bay, WI	0	1	4	7	8	5	4	0	0	1	1	0	0	0	0	0	1	2	3	0	0	1	0	38
WI359	Stevenspoint, WI	2	3	3	14	9	4	2	0	0	0	0	0	0	0	0	0	1	2	1	2	0	0	0	43
WV320	Morgantown, WV	0	0	2	5	5	2	1	1	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	19
WV321	Sugar Grove, WV	0	2	2	7	11	7	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	30
WV322	Huntington, WV	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	0	0	7
WV323	Charleston, WV	0	7	6	18	10	7	2	2	1	0	0	0	0	0	0	0	2	3	8	0	1	0	0	67
WV360	Beckley, WV	0	0	1	0	1	2	2	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	9
WY324	Cheyenne, WY	0	7	37	84	75	46	15	0	1	0	0	1	0	1	6	4	44	103	55	4	3	0	0	484
ZZ530	County Cost Group	0	1	0	3	3	2	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	12
ZZ540	County Cost Group	3	4	10	20	10	2	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	51
ZZ550	County Cost Group	2	7	9	39	27	12	1	0	0	0	0	0	0	0	0	0	1	3	1	0	0	0	0	102
ZZ560	County Cost Group	12	13	19	52	18	12	1	0	0	0	1	0	0	0	0	0	2	2	2	2	1	0	0	135
ZZ570	County Cost Group	2	5	15	42	25	7	4	1	0	0	0	0	0	0	0	1	2	2	2	1	0	0	0	108
ZZ580	County Cost Group	0	15	25	94	52	18	5	2	0	0	0	1	0	3	0	0	3	6	6	1	0	0	0	230
ZZ590	County Cost Group	1	5	26	110	45	17	11	3	0	0	0	0	0	3	0	0	2	8	3	2	0	1	0	239
ZZ600	County Cost Group	3	3	8	34	27	18	10	0	0	0	0	1	0	0	0	0	0	2	2	3	0	0	0	110
ZZ610	County Cost Group	3	20	30	112	68	25	15	4	1	0	0	0	0	1	0	0	4	14	13	3	1	0	0	312
ZZ620	County Cost Group	0	5	11	50	26	26	5	0	0	0	1	1	0	0	0	0	4	4	3	3	1	0	0	139
ZZ630	County Cost Group	3	12	27	109	62	27	16	4	2	0	0	1	0	0	0	0	2	9	6	4	2	0	0	285
ZZ640	County Cost Group	6	13	44	139	54	30	15	1	0	0	0	1	0	0	0	1	3	7	7	2	1	1	0	324
ZZ650	County Cost Group	3	12	21	124	87	40	4	1	0	0	1	0	1	3	1	1	1	8	14	4	0	0	0	324
ZZ660	County Cost Group	2	1	14	60	32	19	8	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	0	141
ZZ670	County Cost Group	3	9	19	48	50	27	10	2	1	0	0	0	1	0	2	0	1	5	10	3	0	0	0	159

Table N-4 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7	Total
ZZ680	County Cost Group	0	2	3	5	16	7	3	0	0	0	0	0	0	0	0	1	0	2	2	3	1	0	0	45
ZZ690	County Cost Group	0	2	4	10	10	6	5	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	39
ZZ700	County Cost Group	0	4	43	46	35	19	6	1	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	159
ZZ710	County Cost Group	1	7	7	53	29	21	3	2	0	0	0	1	0	0	0	0	1	2	3	5	0	0	0	133
ZZ720	County Cost Group	1	4	13	33	15	8	3	0	0	0	0	0	0	3	0	1	0	3	7	0	0	0	0	90
ZZ730	County Cost Group	0	0	3	10	8	6	4	1	0	0	0	1	0	0	0	1	0	1	3	1	0	0	0	30
ZZ740	County Cost Group	1	1	2	9	9	2	7	0	0	0	0	1	0	0	0	0	0	1	2	0	0	1	0	36
ZZ750	County Cost Group	1	1	2	8	4	5	4	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	27
ZZ760	County Cost Group	0	1	1	3	2	3	2	1	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	16
ZZ770	County Cost Group	0	0	2	1	3	0	2	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	10
ZZ780	County Cost Group	1	0	0	2	1	1	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	8
ZZ790	County Cost Group	0	0	1	1	3	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	10
ZZ800	County Cost Group	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	4
ZZ810	County Cost Group	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
ZZ820	County Cost Group	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ZZ830	County Cost Group	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
ZZ840	County Cost Group	0	0	1	3	2	2	1	0	0	0	2	0	0	5	0	1	0	0	2	2	0	0	0	21
ZZ850	County Cost Group	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	3
ZZ860	County Cost Group	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ZZ870	County Cost Group	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ZZ880	County Cost Group	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
ZZ890	County Cost Group	0	0	1	1	1	6	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	11

## ALLOWANCES

### APPENDIX O—FMR AND RUNZHEIMER DATA

This appendix lists, for each MHA, FMRs and Runzheimer \$20,000 rental expense data for efficiency, 1-bedroom, and 2-bedroom apartments. Also listed for each MHA is the Runzheimer designation of areas surveyed.

An MHA's FMR is determined by a weighted average of the 1992 county FMRs that compose that MHA. The weight assigned to each county FMR is determined by the proportion of the MHA's members residing in that county (from the 1991 member survey). FMRs include shelter rent and utilities.

The rental expense data were collected by Runzheimer International and reflect typical rental expenses, in November 1991, for households with \$20,000 annual income. The two standard rental profiles priced in all locations are as follows:

- (1) 900-square-foot apartment, 4 rooms, 2 bedrooms, 1 bathroom.
- (2) 700-square-foot apartment, 3 rooms, 1 bedroom, 1 bathroom.

Efficiency (600-square-feet, 1 room, 1 bath) rental expenses were computed as 85 percent of the 1-bedroom expenses. The Runzheimer rental expenses include shelter rent, utilities, and insurance.

Runzheimer priced rentals in residential communities of each survey area. The measured rental expense for an MHA reflects the average of the typical rents measured in each community. (A listing of the living communities surveyed for each area is available with the raw Runzheimer data in the 7<sup>th</sup> QRM permanent file.) Rental expenses for County Cost Groups were determined by averaging rental expenses for two of the most populous counties in each grouping.

Table O-1. FMR, \$20K Data & Runzheimer Survey Areas

MHA	Location	FMRs			\$20K data			Runzheimer Survey Area
		2-BR	1-BR	Efficiency	2-BR	1-BR	Efficiency	
AK400	Ketchikan, AK	\$680	\$578	\$491	\$845	\$614	\$510	KETCHIKAN
AK401	Sitka, AK	\$759	\$645	\$548	\$785	\$644	\$548	SITKA
AK402	Juneau, AK	\$850	\$723	\$614	\$885	\$744	\$613	JUNEAU
AK403	Kodiak Island, AK	\$907	\$771	\$655	\$900	\$798	\$678	KODIAK
AK404	Anchorage, AK	\$676	\$575	\$489	\$664	\$575	\$489	ANCHORAGE
AK405	Fairbanks, AK	\$664	\$564	\$480	\$756	\$642	\$546	FAIRBANKS
AL001	Anniston/Fort McClellan, AL	\$355	\$302	\$257	\$431	\$370	\$315	ANNISTON
AL002	Fort Rucker, AL	\$406	\$345	\$294	\$406	\$325	\$276	DALEVILLE
AL003	Huntsville, AL	\$413	\$351	\$299	\$516	\$435	\$370	HUNTSVILLE
AL004	Mobile, AL	\$435	\$370	\$314	\$427	\$371	\$316	MOBILE
AL005	Montgomery, AL	\$387	\$329	\$280	\$472	\$421	\$358	MONTGOMERY
AL006	Auburn, AL	\$374	\$318	\$270	\$531	\$465	\$395	AUBURN
AL007	Birmingham, AL	\$417	\$354	\$301	\$493	\$432	\$367	BIRMINGHAM
AL008	Tuscaloosa, AL	\$406	\$345	\$293	\$526	\$470	\$400	TUSCALOOSA
AR009	Blytheville AFB, AR	\$369	\$313	\$266	\$423	\$332	\$282	BLYTHEVILLE
AR010	Little Rock, AR	\$452	\$384	\$327	\$571	\$466	\$396	LITTLE ROCK
AR011	Pine Bluff, AR	\$379	\$322	\$274	\$443	\$362	\$307	PINE BLUFF
AR012	Fort Chaffee/Fort Smith, AR	\$386	\$328	\$279	\$433	\$357	\$293	FORT SMITH
AZ013	Phoenix, AZ	\$542	\$461	\$392	\$552	\$453	\$385	PHOENIX
AZ014	Fort Huachuca, AZ	\$436	\$371	\$315	\$471	\$366	\$311	SIERRA VISTA
AZ015	Davis Monthan AFB, AZ	\$588	\$500	\$425	\$502	\$423	\$359	TUCSON
AZ016	Yuma, AZ	\$554	\$471	\$400	\$576	\$481	\$409	YUMA
AZ017	Navajo County, AZ	\$429	\$365	\$310	\$388	\$303	\$258	HOLBROOK
CA018	Oakland, CA	\$798	\$678	\$577	\$845	\$721	\$612	SAN FRANCISCO S3
CA019	San Francisco, CA	\$962	\$818	\$695	\$871	\$749	\$637	SAN FRANCISCO CMP
CA020	Castle AFB, CA	\$512	\$435	\$370	\$518	\$439	\$373	ATWATER
CA021	China Lake NAVWPCEN, CA	\$601	\$511	\$434	\$530	\$454	\$386	RIDGECREST
CA022	Fresno, CA	\$549	\$467	\$397	\$560	\$469	\$399	FRESNO
CA023	Lemoore NAS, CA	\$496	\$421	\$358	\$530	\$469	\$399	LEMOORE
CA024	Camp Pendleton, CA	\$721	\$613	\$521	\$746	\$650	\$552	OCEANSIDE
CA025	Ventura, CA	\$769	\$654	\$556	\$855	\$735	\$624	VENTURA
CA026	Vandenberg AFB, CA	\$744	\$632	\$538	\$619	\$519	\$441	LOMPOC
CA027	MarysSonoma, CA	\$802	\$681	\$579	\$749	\$666	\$566	PETALUMA
CA028	Barstow/Fort Irwin, CA	\$628	\$534	\$454	\$548	\$465	\$395	BARSTOW
CA029	George AFB, CA	\$628	\$534	\$454	\$569	\$499	\$424	VICTORVILLE
CA030	Edwards AFB, CA	\$677	\$576	\$489	\$620	\$559	\$475	LANCASTER
CA031	San Bernardino, CA	\$628	\$534	\$454	\$722	\$622	\$528	LOS ANGELES S4
CA032	Twentynine Palms MCB, CA	\$627	\$533	\$453	\$478	\$395	\$335	TWENTYNINE PALMS
CA033	Beale AFB, CA	\$474	\$403	\$342	\$463	\$399	\$339	MARYSVILLE
CA034	Sacramento, CA	\$578	\$491	\$418	\$658	\$559	\$475	SACRAMENTO
CA035	Stockton, CA	\$523	\$445	\$378	\$643	\$519	\$441	STOCKTON
CA036	Vallejo/Travis AFB, CA	\$657	\$558	\$475	\$693	\$599	\$509	FAIRFIELD
CA037	Los Angeles, CA	\$843	\$716	\$609	\$837	\$717	\$610	LOS ANGELES CMP
CA038	San Diego, CA	\$711	\$604	\$514	\$731	\$625	\$531	SAN DIEGO CMP
CA039	Monterey, CA	\$657	\$558	\$475	\$741	\$615	\$523	MONTEREY
CA040	Bakersfield, CA	\$601	\$511	\$434	\$600	\$514	\$437	BAKERSFIELD
CA041	Riverside, CA	\$628	\$534	\$454	\$722	\$622	\$528	LOS ANGELES S4
CA042	Humboldt County, CA	\$564	\$480	\$408	\$511	\$431	\$366	EUREKA
CA044	Santa Clara County, CA	\$885	\$752	\$639	\$956	\$790	\$672	SAN JOSE
CA392	San Luis Obispo, CA	\$681	\$579	\$492	\$816	\$675	\$574	SAN LUIS OBISPO

Table O-1 Continued

MHA	Location	1-MHz			\$20K data			Run/Station Survey Area
		2-BR	1-BR	Efficiency	2-BR	1-BR	Efficiency	
CA393	Bridgeport, CA	\$585	\$498	\$423	\$542	\$471	\$400	BRIDGEPORT
CO045	Denver, CO	\$507	\$431	\$366	\$531	\$413	\$351	DENVER R CMP
CO046	Colorado Springs, CO	\$487	\$414	\$352	\$463	\$383	\$326	COLORADO SPRINGS
CO047	Fort Collins, CO	\$540	\$459	\$390	\$529	\$459	\$390	FORT COLLINS
CO048	La Junta/Rocky Ford, CO	\$413	\$351	\$298	\$528	\$458	\$389	LA JUNTA
CT049	New London, CT	\$697	\$593	\$504	\$691	\$638	\$543	NEW LONDON
CT050	Hartford, CT	\$698	\$593	\$504	\$767	\$654	\$556	HARTFORD
CT051	New Haven/Fairfield, CT	\$806	\$685	\$582	\$740	\$618	\$525	NEW HAVEN
DC053	Washington, DC Metro area	\$830	\$705	\$600	\$836	\$731	\$621	WASHINGTON DC CMP
DE354	Dover AFB, DE	\$532	\$452	\$384	\$588	\$529	\$450	DOVER
DE055	Rehoboth Beach, DE	\$531	\$451	\$383	\$543	\$479	\$407	REHOBOTH BEACH
FL056	Eq'n AFB, FL	\$363	\$309	\$263	\$450	\$349	\$296	FORT WALTON BEACH
FL057	Gainesville, FL	\$461	\$392	\$333	\$593	\$467	\$397	GAINESVILLE
FL058	Jacksonville, FL	\$483	\$411	\$349	\$523	\$441	\$375	JACKSONVILLE
FL059	Patrick AFB, FL	\$494	\$420	\$357	\$522	\$441	\$374	TITUSVILLE
FL060	Miami, FL	\$597	\$508	\$432	\$667	\$556	\$473	MIAMI CMP
FL061	Fort Lauderdale, FL	\$617	\$524	\$445	\$690	\$566	\$481	MIAMI S4
FL062	Orlando, FL	\$531	\$454	\$386	\$602	\$510	\$434	ORLANDO
FL063	Panama City, FL	\$388	\$330	\$280	\$430	\$379	\$322	PANAMA CITY
FL064	Pensacola, FL	\$433	\$368	\$313	\$480	\$419	\$356	PENSACOLA
FL065	Tallahassee, FL	\$455	\$387	\$329	\$624	\$497	\$422	TALLAHASSEE
FL066	Tampa, FL	\$520	\$442	\$376	\$545	\$493	\$419	TAMPA
FL067	West Palm Beach, FL	\$541	\$460	\$391	\$770	\$656	\$558	WEST PALM BEACH
FL068	Astor, FL	\$426	\$362	\$308	\$452	\$380	\$323	LEESBURG
FL069	Key West, FL	\$695	\$591	\$502	\$973	\$809	\$687	KEY WEST
FL070	Volusia County, FL	\$511	\$434	\$369	\$522	\$446	\$379	DAYTONA BEACH
FL328	Avon Park/Sebring, FL	\$378	\$321	\$273	\$501	\$395	\$335	AVON PARK
FL397	Polk County, FL	\$436	\$371	\$315	\$502	\$420	\$357	LAKELAND
GA071	Atlanta, GA	\$576	\$490	\$416	\$612	\$525	\$446	ATLANTA S2
GA072	Albany, GA	\$360	\$306	\$260	\$450	\$394	\$335	ALBANY
GA073	Fort Gordon, GA	\$413	\$351	\$298	\$510	\$444	\$377	AUGUSTA
GA074	Kings Bay/Brunswick, GA	\$386	\$328	\$279	\$535	\$439	\$373	BRUNSWICK
GA075	Fort Benning, GA	\$370	\$314	\$267	\$490	\$419	\$356	COLUMBUS
GA076	Robins AFB, GA	\$417	\$355	\$301	\$490	\$414	\$352	MACON
GA077	Savannah, GA	\$421	\$358	\$304	\$560	\$509	\$433	SAVANNAH
GA078	Athens, GA	\$413	\$351	\$298	\$512	\$410	\$349	ATHEHS
GA079	Dahlonega, GA	\$315	\$268	\$228	\$492	\$395	\$336	DAHLONEGA
GA080	Fort Stewart, GA	\$380	\$323	\$275	\$465	\$409	\$348	HINESVILLE
GA081	Moody AFB, GA	\$340	\$289	\$246	\$465	\$409	\$348	VALDOSTA
HI408	Honolulu County, HI	\$851	\$723	\$615	\$1,044	\$885	\$753	HONOLULU
HI409	Hawaii County, HI	\$698	\$593	\$504	\$899	\$705	\$600	HILO
IA082	Des Moines, IA	\$492	\$418	\$355	\$564	\$482	\$410	DES MOINES
IA083	Ames, IA	\$451	\$383	\$326	\$572	\$470	\$399	AMES
ID084	Boise, ID	\$545	\$463	\$394	\$509	\$434	\$368	BOISE
ID085	Idaho Falls, ID	\$493	\$419	\$356	\$424	\$334	\$283	IDAHO FALLS
ID086	Mountain Home AFB, ID	\$441	\$375	\$319	\$489	\$379	\$322	MOUNTAIN HOME
ID087	Pocatello, ID	\$457	\$388	\$330	\$389	\$339	\$288	POCATELLO
ID333	Moscow, ID/Pullman, WA	\$468	\$398	\$338	\$432	\$342	\$291	MOSCOW
IL088	Chanute AFB, IL	\$459	\$390	\$332	\$410	\$346	\$294	RANTOUL
IL089	Rock Island, IL	\$510	\$434	\$368	\$523	\$449	\$382	ROCK ISLAND

Table O-1 Continued

MHAs	Location	FMRA			\$20K core			Range marker Survey Area
		2-BR	1-BR	Efficiency	2-BR	1-BR	Efficiency	
IL090	Peoria, IL	\$538	\$457	\$389	\$535	\$456	\$387	PEORIA
IL092	Great Lakes NAVTRACEN, IL	\$681	\$578	\$492	\$710	\$626	\$532	CHICAGO S6
IL093	Scott AFB, IL	\$497	\$423	\$359	\$457	\$399	\$339	CARLYLE
IL325	Chicago, IL	\$665	\$565	\$481	\$862	\$724	\$615	CHICAGO CMP
IL335	Springfield/Decatur, IL	\$479	\$407	\$346	\$544	\$480	\$408	SPRINGFIELD
IL363	Winnebago, IL	\$472	\$401	\$341	\$548	\$454	\$386	ROCKFORD
IL366	Joliet Army Depot, IL	\$634	\$539	\$458	\$588	\$489	\$416	JOLIET
IN094	Indianapolis/Ft Harrison, IN	\$495	\$421	\$358	\$615	\$499	\$424	INDIANAPOLIS
IN095	Grisson AFB, IN	\$403	\$342	\$291	\$475	\$417	\$355	PERU
IN096	Lafayette, IN	\$462	\$393	\$334	\$560	\$473	\$402	LAFAYETTE
IN097	Fort Wayne, IN	\$433	\$368	\$313	\$545	\$457	\$389	FORT WAYNE
IN099	South Bend, IN	\$433	\$368	\$313	\$605	\$517	\$440	SOUTH BEND
IN337	Evansville, IN	\$430	\$366	\$311	\$528	\$440	\$374	EVANSVILLE
IN338	Terre Haute, IN	\$389	\$331	\$281	\$515	\$428	\$364	TERRE HAUTE
IN367	Gary, IN	\$517	\$439	\$373	\$581	\$518	\$440	GARY
IN399	Bloomington, IN	\$429	\$365	\$310	\$541	\$460	\$391	BLOOMINGTON
KS100	Fort Riley, KS	\$399	\$339	\$288	\$501	\$403	\$343	LAWRENCE
KS101	Wichita/McConnell AFB, KS	\$483	\$410	\$349	\$496	\$440	\$374	MANHATTAN
KS102	Fort Leavenworth, KS	\$451	\$383	\$326	\$503	\$395	\$336	WICHITA
KS104	Lawrence, KS	\$499	\$424	\$361	\$524	\$367	\$312	LEAVENWORTH
KS105	Topeka, KS	\$447	\$380	\$323	\$484	\$428	\$364	TOPEKA
KY106	Fort Campbell, KY	\$454	\$386	\$328	\$455	\$388	\$330	CLARKSVILLE
KY107	Lexington, KY	\$462	\$393	\$334	\$516	\$460	\$391	LEXINGTON
KY109	Louisville, KY	\$397	\$337	\$287	\$540	\$455	\$386	LOUISVILLE
KY110	Fort Knox, KY	\$380	\$323	\$275	\$416	\$365	\$310	RADCLIFF
LA113	England AFB, LA	\$391	\$332	\$282	\$468	\$368	\$312	ALEXANDRIA
LA114	Baton Rouge, LA	\$487	\$414	\$352	\$406	\$351	\$299	BATON ROUGE
LA115	Fort Polk, LA	\$322	\$274	\$233	\$413	\$388	\$329	LEESVILLE
LA116	New Orleans, LA	\$525	\$446	\$379	\$531	\$431	\$366	NEW ORLEANS
LA117	Shreveport/Barksdale AFB, LA	\$444	\$377	\$321	\$469	\$379	\$322	SHREVEPORT
LA118	Lafayette, LA	\$457	\$388	\$330	\$396	\$317	\$269	LAFAYETTE
LA326	St Mary and Terrebonne, LA	\$418	\$355	\$302	\$412	\$353	\$300	HOUMA
LA370	Lake Charles, LA	\$400	\$340	\$289	\$496	\$417	\$354	LAKE CHARLES
LA371	Monroe, LA	\$368	\$313	\$266	\$428	\$373	\$317	MONROE
MA120	Boston, MA	\$902	\$767	\$652	\$970	\$834	\$709	BOSTON CMP
MA121	Cape Cod, MA	\$816	\$693	\$589	\$721	\$582	\$494	CAPE COD
MA122	Worcester, MA	\$902	\$767	\$652	\$791	\$677	\$575	WORCESTER
MA123	Fort Devens/Ayer, MA	\$902	\$767	\$652	\$661	\$536	\$456	AYER
MA124	Brockton/S Weymouth, MA	\$902	\$767	\$652	\$931	\$802	\$681	BOSTON S2
MA125	Essex County, MA	\$902	\$767	\$652	\$951	\$807	\$686	BOSTON S3
MA126	Hampden County, MA	\$661	\$562	\$478	\$679	\$585	\$497	SPRINGFIELD
MA377	Hanscomb AFB, MA	\$849	\$721	\$613	\$951	\$807	\$686	BOSTON S3
MD127	Aberdeen Proving Grounds, MD	\$574	\$488	\$414	\$562	\$449	\$382	ABERDEEN
MD128	Annapolis, MD	\$571	\$485	\$413	\$802	\$709	\$603	ANNAPOLIS
MD129	Baltimore, MD	\$571	\$485	\$413	\$717	\$634	\$539	BALTIMORE S2
MD130	Fort Detrick, MD	\$830	\$706	\$600	\$682	\$614	\$522	FREDERICK
MD131	Fort Richie, MD	\$475	\$403	\$343	\$567	\$494	\$420	HAGERSTOWN
MD133	Fort G. G. Meade, MD	\$580	\$493	\$419	\$802	\$709	\$603	BOWIE
MD134	Indian Head NAVORDSTA, MD	\$830	\$706	\$600	\$878	\$715	\$608	INDIAN HEAD
MD135	Patuxent River, MD	\$624	\$531	\$451	\$717	\$634	\$539	LEXINGTON PARK



Table O-1 Continued

MHA	Location	FUEls			\$20K data			Runzheimer Survey Area
		2-BR	1-BR	Efficiency	2-BR	1-BR	Efficiency	
ME136	Brunswick, ME	\$599	\$509	\$432	\$719	\$630	\$536	BRUNSWICK
ME137	Long AFB, ME	\$481	\$409	\$348	\$444	\$380	\$323	CARIBOU
ME139	Portland, ME	\$716	\$609	\$517	\$669	\$560	\$476	PORTLAND
ME140	Bar Harbor, ME	\$491	\$417	\$355	\$563	\$530	\$451	BAR HARBOR
ME390	Bangor, ME	\$517	\$439	\$374	\$639	\$525	\$446	BANGOR
MI142	Detroit, MI	\$518	\$439	\$373	\$734	\$621	\$528	DETROIT S3
MI143	KI Sawyer AFB, MI	\$448	\$380	\$323	\$516	\$456	\$388	MARQUETTE
MI145	Sault Ste Marie, MI	\$358	\$304	\$259	\$431	\$386	\$328	SAULT STE MARIE
MI146	Traverse City, MI	\$451	\$383	\$326	\$636	\$534	\$454	TRAVERSE CITY
MI148	Muskegon, MI	\$437	\$372	\$316	\$646	\$554	\$471	MUSKEGON
MI149	Port Huron, MI	\$516	\$439	\$373	\$574	\$481	\$409	PORT HURON
MI150	Wurtsmith AFB, MI	\$394	\$335	\$285	\$551	\$454	\$386	OSCODA
MI152	Battle Creek/Kalamazoo, MI	\$431	\$367	\$312	\$536	\$459	\$390	KALAMAZOO
MI153	Lansing, MI	\$489	\$416	\$353	\$636	\$529	\$450	LANSING
MI154	Grand Rapids, MI	\$492	\$418	\$355	\$641	\$514	\$437	GRAND RAPIDS
MI155	Ann Arbor, MI	\$603	\$513	\$436	\$699	\$596	\$506	ANN ARBOR
MI156	Saginaw, MI	\$446	\$379	\$322	\$569	\$506	\$430	SAGINAW
MI341	Flint, MI	\$439	\$373	\$317	\$564	\$461	\$392	FLINT
MN158	Duluth, MN	\$452	\$384	\$326	\$642	\$554	\$471	DULUTH
MN159	Minneapolis/St Paul, MN	\$619	\$526	\$447	\$663	\$546	\$464	MINNEAPOLIS S3
MO160	Kansas City, MO	\$451	\$383	\$326	\$565	\$455	\$387	KANSAS CITY S2
MO161	St. Louis, MO	\$498	\$423	\$360	\$500	\$423	\$360	ST LOUIS CMP
MO162	Whiteman AFB, MO	\$371	\$315	\$268	\$383	\$297	\$252	KNOB NOSTER
MO163	Fort Leonard Wood, MO	\$346	\$295	\$250	\$411	\$340	\$289	WAYNESVILLE
MO164	Springfield, MO	\$368	\$330	\$280	\$459	\$372	\$321	SPRINGFIELD
MO165	Columbia/Jefferson City, MO	\$396	\$336	\$286	\$463	\$397	\$337	COLUMBIA
MS168	Gulfport, MS	\$394	\$335	\$285	\$456	\$395	\$336	GULFPORT
MS169	Columbus AFB, MS	\$396	\$336	\$286	\$381	\$350	\$298	COLUMBUS
MS170	Jackson, MS	\$480	\$408	\$347	\$475	\$394	\$335	JACKSON
MS171	Meridian, MS	\$362	\$307	\$261	\$436	\$385	\$327	MERIDIAN
MS172	Hattiesburg, MS	\$364	\$309	\$263	\$446	\$380	\$308	HATTIESBURG
MT175	Malmstrom AFB/Great Falls, MT	\$470	\$400	\$340	\$418	\$331	\$281	GREAT FALLS
NC177	Morehead/Cherry Pt MCAS, NC	\$400	\$340	\$289	\$446	\$369	\$314	NEW BERN
NC178	Camp Lejeune, NC	\$380	\$323	\$275	\$431	\$364	\$310	JACKSONVILLE
NC179	Charlotte, NC	\$441	\$375	\$319	\$590	\$498	\$423	CHARLOTTE
NC180	Durham/Chapel Hill, NC	\$473	\$407	\$346	\$605	\$523	\$445	CHAPEL HILL
NC181	Elizabeth City, NC	\$378	\$321	\$273	\$456	\$419	\$356	ELIZABETH CITY
NC182	Fort Bragg/Pope AFB, NC	\$418	\$356	\$302	\$475	\$413	\$351	FAYETTEVILLE
NC183	Seymour Johnson AFB, NC	\$349	\$297	\$252	\$515	\$393	\$334	GOLDSBORO
NC184	Greensboro, NC	\$424	\$360	\$306	\$542	\$470	\$399	GREENSBORO
NC185	Raleigh, NC	\$481	\$409	\$348	\$585	\$498	\$423	RALEIGH
NC186	Wilmington, NC	\$395	\$336	\$285	\$536	\$459	\$390	WILMINGTON
ND188	Bismarck, ND	\$462	\$393	\$334	\$468	\$402	\$341	BISMARCK
ND189	Fargo, ND	\$461	\$392	\$333	\$529	\$467	\$397	FARGO
ND190	Grand Forks, ND	\$436	\$370	\$315	\$574	\$447	\$380	GRAND FORKS
ND191	Minot AFB, ND	\$392	\$333	\$283	\$418	\$357	\$303	MINOT
NE192	Omaha/Offutt AFB, NE	\$443	\$377	\$320	\$578	\$466	\$396	OMAHA
NE193	Lincoln, NE	\$458	\$389	\$331	\$537	\$455	\$386	LINCOLN
NH194	Portsmouth, NH/Kittery, ME	\$718	\$610	\$518	\$745	\$556	\$472	PORTSMOUTH
NH195	Manchester/Concord, NH	\$751	\$639	\$543	\$605	\$546	\$464	MANCHESTER

Table O-1 Continued

MHA	Location	FMRA			S20K data			Run/mer
		2-RR	1-RR	Efficiency	2-RR	1-RR	Efficiency	Survey Area
NJ196	Atlantic City, NJ	\$630	\$536	\$455	\$685	\$578	\$491	ATLANTIC CITY
NJ198	Cape May, NJ	\$629	\$535	\$455	\$684	\$622	\$529	CAPE MAY
NJ200	Fort Monmouth-Earls NWS, NJ	\$742	\$631	\$536	\$830	\$712	\$605	LONG BRANCH
NJ201	Perth Amboy, NJ	\$825	\$701	\$596	\$825	\$712	\$605	NYC (NENJ) S2
NJ202	Northern New Jersey	\$744	\$633	\$538	\$845	\$712	\$605	NYC (NENJ) S8
NJ203	Trenton, NJ	\$740	\$629	\$535	\$784	\$657	\$558	TRENTON
NJ204	Ft Dix/McGuire/Lakehurst, NJ	\$626	\$532	\$452	\$651	\$543	\$462	BROWNS MILLS
NM205	Holloman AFB/Alamogordo, NM	\$426	\$362	\$308	\$445	\$404	\$344	ALAMOGORDO
NM206	Albuquerque/Kirtland AFB, NM	\$543	\$461	\$392	\$544	\$453	\$385	ALBUQUERQUE
NM207	Cannon AFB/Clovis, NM	\$405	\$344	\$293	\$420	\$369	\$314	CLOVIS
NM208	Gallup, NM	\$544	\$462	\$393	\$424	\$383	\$328	GALLUP
NM209	White Sands MRL/Las Cruces, NM	\$433	\$368	\$313	\$509	\$413	\$351	LAS CRUCES
NM210	Santa Fe/Los Alamos, NM	\$638	\$542	\$461	\$629	\$548	\$468	SANTA FE
NV211	Fallon NAS, NV	\$578	\$491	\$418	\$508	\$396	\$336	FALLON
NV212	Nellis AFB/Las Vegas, NV	\$663	\$563	\$479	\$621	\$531	\$451	LAS VEGAS
NV213	Carson City, NV	\$760	\$646	\$549	\$578	\$478	\$404	RENO
NY215	Ballston Spa/Albany, NY	\$532	\$452	\$384	\$708	\$610	\$519	ALBANY
NY216	Buffalo, NY	\$455	\$387	\$329	\$579	\$470	\$400	BUFFALO
NY217	West Point, NY	\$677	\$575	\$489	\$788	\$690	\$587	WEST POINT
NY218	Long Island, NY	\$878	\$746	\$634	\$1,058	\$899	\$764	NYC (LI) S5
NY219	New York City, NY	\$661	\$562	\$478	\$979	\$829	\$704	NEW YORK CITY CMP
NY220	Plattsburgh, NY	\$472	\$402	\$341	\$615	\$503	\$428	PLATTSBURGH
NY221	Rochester, NY	\$580	\$493	\$419	\$645	\$548	\$466	ROCHESTER
NY222	Rome/Griffiss Air B, NY	\$464	\$394	\$335	\$560	\$443	\$377	ROME
NY223	Seneca Army Dep/Syracuse, NY	\$501	\$426	\$362	\$610	\$533	\$453	SYRACUSE
NY225	Fort Drum/Watertown, NY	\$517	\$439	\$374	\$605	\$513	\$436	WATERTOWN
NY226	Binghamton/Ithaca, NY	\$495	\$421	\$357	\$575	\$508	\$432	BINGHAMTON
NY349	Westchester County, NY	\$755	\$642	\$546	\$1,124	\$951	\$808	NYC (LNYS) S3
NY395	Jamestown, NY	\$443	\$376	\$320	\$524	\$465	\$398	JAMESTOWN
OH227	Akron, OH	\$438	\$373	\$317	\$623	\$522	\$443	AKRON
OH228	Cincinnati, OH	\$472	\$401	\$341	\$556	\$471	\$400	CINCINNATI S2
OH229	Cleveland, OH	\$472	\$401	\$341	\$665	\$553	\$470	CLEVELAND S4
OH230	Columbus, OH	\$456	\$388	\$329	\$538	\$447	\$380	COLUMBUS
OH231	Wright-Patterson AFB, OH	\$420	\$357	\$304	\$588	\$507	\$431	DAYTON
OH232	Toledo, OH	\$491	\$417	\$355	\$548	\$481	\$409	TOLEDO
OH233	Youngstown, OH	\$427	\$363	\$309	\$497	\$410	\$349	YOUNGSTOWN
OH382	Mansfield, OH	\$383	\$326	\$277	\$428	\$362	\$308	MANSFIELD
OK235	Altus AFB, OK	\$341	\$290	\$246	\$381	\$346	\$294	ALTUS
OK236	Vance AFB/Enid, OK	\$460	\$391	\$332	\$373	\$323	\$274	ENID
OK237	Fort Sill/Lawton, OK	\$396	\$337	\$286	\$421	\$361	\$306	LAWTON
OK239	Oklahoma City, OK	\$428	\$363	\$309	\$448	\$372	\$317	OKLAHOMA CITY
OK240	Tulsa, OK	\$497	\$423	\$359	\$523	\$413	\$351	TULSA
OR241	Astoria, OR	\$513	\$436	\$371	\$482	\$421	\$358	ASTORIA
OR242	Coos Bay, OR	\$551	\$468	\$398	\$422	\$371	\$315	COOS BAY
OR243	Portland, OR	\$508	\$430	\$365	\$627	\$516	\$438	PORTLAND
OR244	Salem, OR	\$542	\$461	\$392	\$477	\$426	\$362	SALEM
OR245	Corvallis, OR	\$529	\$450	\$382	\$512	\$456	\$387	CORVALLIS
OR246	Eugene, OR	\$580	\$493	\$419	\$557	\$471	\$400	EUGENE
PA247	Carlisle Barracks, PA	\$549	\$466	\$396	\$612	\$533	\$453	HARRISBURG
PA248	Philadelphia, PA/Camden, NJ	\$613	\$521	\$443	\$745	\$642	\$545	PHILADELPHIA CMP

Table O-1 Continued

MHA	Location	FMRe			\$20K data			Hunzhauser Survey Area
		2-BR	1-BR	Efficiency	2-BR	1-BR	Efficiency	
PA249	NAS Willow Grove, PA	\$610	\$519	\$441	\$699	\$615	\$523	PHILADELPHIA S2
PA250	Pittsburgh, PA	\$444	\$378	\$321	\$616	\$523	\$444	PITTSBURGH S3
PA251	Reading, PA	\$526	\$447	\$380	\$642	\$568	\$483	READING
PA252	State College, PA	\$601	\$511	\$434	\$682	\$593	\$504	STATE COLLEGE
PA253	Erie, PA	\$536	\$456	\$387	\$569	\$455	\$387	ERIE
PA254	Wilkes Barre/Scranton, PA	\$428	\$364	\$309	\$617	\$539	\$458	WILKES BARRE
PA255	Allentown/Bethlehem, PA	\$514	\$437	\$371	\$642	\$563	\$479	ALLENTOWN
PA380	Letterkenny Army Depot, PA	\$479	\$407	\$346	\$467	\$383	\$326	CHAMBERSBURG
PA383	Johnstown, PA	\$453	\$385	\$327	\$500	\$397	\$337	JOHNSTOWN
RI256	Newport, RI	\$730	\$621	\$528	\$870	\$751	\$638	NEWPORT
RI257	Providence, RI	\$669	\$569	\$484	\$787	\$684	\$581	PROVIDENCE
SC258	Beaufort/Parris Island, SC	\$412	\$350	\$298	\$484	\$462	\$392	BEAUFORT
SC259	Charleston, SC	\$450	\$382	\$325	\$528	\$466	\$396	CHARLESTON
SC260	Columbia/Fort Jackson, SC	\$450	\$382	\$325	\$517	\$460	\$391	COLUMBIA
SC261	Greenville, SC	\$389	\$331	\$281	\$541	\$455	\$386	GREENVILLE
SC262	Myrtle Beach AFB, SC	\$371	\$316	\$268	\$484	\$422	\$358	MYRTLE BEACH
SC263	Sumter/Shaw AFB, SC	\$358	\$304	\$259	\$447	\$395	\$336	SUMTER
SD264	Rapid City/Ellsworth AFB, SD	\$413	\$351	\$298	\$545	\$468	\$398	RAPID CITY
SD265	Sioux Falls, SD	\$436	\$370	\$315	\$505	\$433	\$368	SIOUX FALLS
TN266	Chattanooga, TN	\$448	\$381	\$324	\$513	\$431	\$367	CHATTANOOGA
TN267	Knoxville, TN	\$410	\$349	\$296	\$553	\$452	\$384	KNOXVILLE
TN268	Memphis, TN	\$439	\$373	\$317	\$587	\$466	\$396	MEMPHIS
TN269	Nashville, TN	\$492	\$418	\$355	\$551	\$464	\$395	NASHVILLE
TN353	Johnson City/Kingsport, TN	\$374	\$318	\$270	\$543	\$456	\$388	JOHNSON CITY
TN354	Manchester/Tulahoma, TN	\$364	\$309	\$263	\$450	\$393	\$334	TULLAHOMA
TX270	Abilene/Dyess AFB, TX	\$447	\$380	\$323	\$434	\$359	\$305	ABILENE
TX271	Amarillo, TX	\$412	\$350	\$298	\$449	\$359	\$305	AMARILLO
TX272	Austin/Bergstrom AFB, TX	\$515	\$438	\$372	\$514	\$398	\$338	AUSTIN
TX273	Beaumont, TX	\$474	\$403	\$343	\$464	\$398	\$338	BEAUMONT
TX274	College Station, TX	\$556	\$473	\$400	\$534	\$418	\$355	BRYAN
TX275	Corpus Christi, TX	\$484	\$411	\$350	\$495	\$404	\$344	CORPUS CHRISTI
TX276	Kingsville, TX	\$397	\$337	\$287	\$450	\$389	\$331	KINGSVILLE
TX277	Dallas, TX	\$530	\$451	\$383	\$560	\$443	\$376	DALLAS CMP
TX278	Laughlin AFB/Del Rio, TX	\$342	\$291	\$247	\$409	\$314	\$267	DEL RIO
TX279	El Paso, TX	\$413	\$351	\$298	\$529	\$439	\$373	EL PASO
TX280	Galveston, TX	\$442	\$376	\$319	\$534	\$428	\$364	GALVESTON
TX281	Brownsville, TX	\$417	\$354	\$301	\$455	\$369	\$314	BROWNSVILLE
TX282	Houston, TX	\$456	\$388	\$330	\$504	\$408	\$347	HOUSTON S3
TX283	Lubbock/Reese AFB, TX	\$399	\$339	\$288	\$469	\$394	\$335	LUBBOCK
TX284	Goodfellow AFB, TX	\$451	\$383	\$326	\$499	\$409	\$347	SAN ANGELO
TX285	San Antonio, TX	\$510	\$433	\$368	\$505	\$399	\$339	SAN ANTONIO
TX286	Fort Hood, TX	\$392	\$333	\$283	\$434	\$383	\$325	KILLEEN
TX287	Texarkana, TX	\$378	\$321	\$273	\$448	\$376	\$319	TEXARKANA
TX288	Wichita Falls/Sheppard AFB, TX	\$425	\$362	\$307	\$494	\$394	\$335	WICHITA FALLS
TX289	Beeville, TX	\$397	\$337	\$287	\$375	\$289	\$246	BEEVILLE
TX356	Fort Worth, TX	\$508	\$432	\$367	\$548	\$430	\$366	DALLAS S4
UT291	Ogden/Hill AFB, UT	\$429	\$365	\$310	\$468	\$404	\$343	OGDEN
UT292	Salt Lake City, UT	\$429	\$365	\$310	\$548	\$444	\$377	SALT LAKE CITY
UT357	Provo, UT	\$446	\$379	\$322	\$493	\$434	\$369	PROVO
VA295	Charlottesville, VA	\$509	\$433	\$368	\$656	\$563	\$479	CHARLOTTESVILLE

Table O-1 Continued

MNA	Location	FMRs			\$20K data			Runzheimer Survey Area
		2-BR	1-BR	Efficiency	2-BR	1-BR	Efficiency	
VA296	Quantico/Woodbridge, VA	\$826	\$702	\$597	\$658	\$627	\$533	WOODBIDGE
VA297	Hampton/Newport News, VA	\$550	\$451	\$383	\$530	\$457	\$399	NEWPORT NEWS
VA298	Norfolk/Portsmouth, VA	\$530	\$451	\$383	\$530	\$477	\$406	NORFOLK
VA300	Petersburg/Fort Lee, VA	\$464	\$394	\$335	\$501	\$443	\$377	PETERSBURG
VA301	Richmond, VA	\$465	\$395	\$336	\$581	\$509	\$433	RICHMOND
VA302	Warrenton/Vint Hill Farm, VA	\$715	\$608	\$517	\$571	\$513	\$436	WARRENTON
VA303	Lexington, VA	\$421	\$358	\$304	\$411	\$323	\$275	LEXINGTON
VA304	Wallops Island, VA	\$385	\$327	\$278	\$530	\$460	\$391	CHINCOTEAGUE
VA362	Roanoke, VA	\$450	\$383	\$325	\$542	\$465	\$395	ROANOKE
VA368	Camp A.P. Hill, VA	\$470	\$400	\$340	\$631	\$568	\$483	FREDERICKSBURG
VT305	Burlington, VT	\$634	\$539	\$458	\$693	\$544	\$463	BURLINGTON
WA306	Bremerton, WA	\$549	\$466	\$396	\$558	\$464	\$395	BREMERTON
WA307	Everett, WA	\$632	\$537	\$457	\$563	\$479	\$407	EVERETT
WA308	Port Angeles, WA	\$530	\$451	\$383	\$466	\$377	\$320	PORT ANGELES
WA309	Seattle, WA	\$632	\$537	\$457	\$576	\$477	\$405	SEATTLE CMP
WA310	Spokane, WA	\$477	\$405	\$344	\$463	\$362	\$307	SPOKANE
WA311	Tacoma, WA	\$516	\$439	\$373	\$533	\$439	\$373	SEATTLE S3
WA312	Whidbey Island, WA	\$541	\$460	\$391	\$591	\$457	\$388	OAK HARBOR
WA313	Yakima, WA	\$499	\$424	\$361	\$561	\$452	\$384	YAKIMA
WA315	Aberdeen, WA	\$530	\$451	\$383	\$391	\$347	\$295	ABERDEEN
WI316	Madison, WI	\$505	\$429	\$365	\$599	\$512	\$435	MADISON
WI317	Milwaukee, WI	\$492	\$418	\$355	\$684	\$593	\$504	MILWAUKEE S4
WI318	Sparta/Fort McCoy, WI	\$418	\$356	\$302	\$469	\$337	\$287	SPARTA
WI319	Oshkosh/Appleton, WI	\$421	\$358	\$304	\$492	\$436	\$370	APPLETON
WI358	Green Bay, WI	\$417	\$355	\$301	\$495	\$417	\$355	GREEN BAY
WI359	Stevenspoint, WI	\$424	\$361	\$307	\$497	\$416	\$353	STEVENS POINT
WV320	Morgantown, WV	\$451	\$384	\$326	\$548	\$427	\$363	MORGANTOWN
WV321	Sugar Grove, WV	\$370	\$315	\$267	\$373	\$342	\$290	SUGAR GROVE
WV322	Huntington, WV	\$444	\$377	\$321	\$463	\$402	\$341	HUNTINGTON
WV323	Charleston, WV	\$538	\$457	\$389	\$508	\$437	\$371	CHARLESTON
WV360	Beckley, WV	\$360	\$306	\$260	\$403	\$342	\$290	BECKLEY
WY324	Cheyenne, WY	\$518	\$440	\$374	\$464	\$406	\$345	CHEYENNE
ZZ530	County Cost Group	\$290	\$247	\$210	\$396	\$328	\$279	JENNINGS, LA FORSYTH & SMARR, GA
ZZ540	County Cost Group	\$335	\$259	\$220	\$426	\$353	\$300	TOMKINSVILLE, KY WAYNESBORO, MS
ZZ550	County Cost Group	\$320	\$272	\$231	\$401	\$333	\$282	ALICEVILLE, AL EUFULA, AL
ZZ560	County Cost Group	\$335	\$285	\$242	\$395	\$328	\$278	RUSSELLVILLE, AR DEXTER, MO
ZZ570	County Cost Group	\$350	\$298	\$253	\$429	\$356	\$302	MARTIN, TN ORANGEBURG, SC
ZZ580	County Cost Group	\$365	\$310	\$264	\$368	\$305	\$259	MONTICELLO, KY COOKEVILLE, TN
ZZ590	County Cost Group	\$380	\$323	\$275	\$441	\$366	\$311	JOPLIN, MO ROME, GA
ZZ600	County Cost Group	\$395	\$336	\$285	\$437	\$363	\$309	FLORENCE, SC ST JOSEPH, MO
ZZ610	County Cost Group	\$410	\$349	\$296	\$394	\$327	\$278	BAY SAINT LOUIS, MS KINGSTREE, SC

Table O-1 Continued

MHA	Location	FMRs			\$20K data			Runzheimer Survey Area
		2-BR	1-BR	Efficiency	2-BR	1-BR	Efficiency	
ZZ620	County Cost Group	\$425	\$361	\$307	\$451	\$374	\$318	LAS VEGAS, NM
ZZ630	County Cost Group	\$440	\$374	\$318	\$452	\$375	\$319	ASHEVILLE, NC
ZZ640	County Cost Group	\$455	\$387	\$329	\$437	\$362	\$308	RICHMOND, KY
ZZ650	County Cost Group	\$470	\$400	\$340	\$560	\$464	\$395	McCONNELSVILLE, OH
ZZ660	County Cost Group	\$485	\$412	\$350	\$490	\$407	\$346	FRANKFORT, KY
ZZ670	County Cost Group	\$500	\$425	\$361	\$488	\$405	\$344	PARKERSBURG, WV
ZZ680	County Cost Group	\$515	\$438	\$372	\$574	\$476	\$405	MANKATO, MN
ZZ690	County Cost Group	\$530	\$451	\$383	\$504	\$419	\$356	COLUMBUS, IN
ZZ700	County Cost Group	\$545	\$463	\$394	\$472	\$392	\$333	TOOELE, UT
ZZ710	County Cost Group	\$560	\$476	\$405	\$490	\$407	\$346	SIOUX CITY, IA
ZZ720	County Cost Group	\$575	\$489	\$415	\$446	\$370	\$315	ST. CLOUD, MN
ZZ730	County Cost Group	\$590	\$502	\$426	\$561	\$466	\$396	BUTTE, MT
ZZ740	County Cost Group	\$605	\$514	\$437	\$552	\$458	\$390	KALISPELL, MT
ZZ750	County Cost Group	\$620	\$527	\$448	\$555	\$460	\$391	BLOOMINGTON, IL
ZZ760	County Cost Group	\$635	\$540	\$459	\$686	\$569	\$484	WATERLOO, IA
ZZ770	County Cost Group	\$650	\$553	\$470	\$498	\$413	\$351	KLAMATH FALLS, OR
ZZ780	County Cost Group	\$665	\$565	\$480	\$418	\$347	\$295	STERLING, IL
ZZ790	County Cost Group	\$680	\$578	\$491	\$471	\$391	\$332	WASHINGTON, MO
ZZ810	County Cost Group	\$710	\$604	\$513	\$443	\$368	\$313	BILLINGS, MT
ZZ820	County Cost Group	\$725	\$616	\$524	\$720	\$597	\$508	IOWA CITY, IA
ZZ860	County Cost Group	\$785	\$667	\$567	\$753	\$625	\$531	HELENA, MT
ZZ880	County Cost Group	\$815	\$693	\$589	\$741	\$615	\$523	ODESSA, TX
								REDDING, CA
								FORT MEYERS, FL
								BUFFALO, MN
								MEDFORD, OR
								LEBANON, NH
								VICTORIA, TX
								RUTLAND, VT
								KINGSTON, NY
								GRAND JUNCTION, CO
								KENNEWICK, WA
								CASPER, WY
								VAIL, CO
								MONTROS, CO
								ST. ALBANS, VT
								KEENE, NH
								UNALASKA, AK
								POUGHKEEPSIE, NY
								TORRINGTON, CT

## ALLOWANCES

### APPENDIX P—HOUSING ALLOWANCE RATES: WITH-DEPENDENTS FLOOR

This appendix shows the housing allowances (by MHA and paygrade) for members with dependents that would result from the implementation of the \$20k (Table P-1) and FMR (Table P-2) floors. In the tables, HA rates that would change as a consequence of the floor are shaded. (Appendix N provides a schedule of 1992 housing allowances.)

The floors were calculated using the 2-bedroom data listed in Appendix O. The formula for the price-based allowance, equation (1) of Chapter 4, was used to calculate each MHA floor. A 20 percent absorption factor was applied.

The primary rule for determining the new housing allowance schedules is that members receive the greater of the current HA and the floor. The one exception to this rule is for E-4s to E-9s that fall below the floor. Members in these grades receive a new housing allowance which is determined by interpolating (linearly) between the floor amount and the HA of the first paygrade which falls above the floor. The purpose of this adjustment is to maintain the hierarchy of the HA rates for the enlisted grades.

Table P-1. 1992 Housing Allowance with \$20K Floor: With Dependents\*

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
AK400	Ketchikan, AK	728	728	731	785	839	935	996	1048	918	964	1029	1086	977	987	1063	899	939	1017	1125	1219	1219	1241	
AK401	Sitka, AK	668	668	679	754	834	939	1035	1063	1145	913	1075	1170	1197	1045	1080	1216	892	1020	1151	1290	1361	1408	1434
AK402	Juneau, AK	768	768	768	822	912	1071	1111	1118	1187	954	1091	1187	1209	1074	1106	1237	949	1043	1168	1262	1342	1386	1411
AK403	Kodiak Island, AK	878	892	937	1042	1144	1247	1291	1306	1367	1090	1213	1293	1313	1199	1218	1329	1080	1185	1285	1370	1440	1440	1466
AK404	Anchorage, Ak	595	594	636	728	855	941	1021	1076	1148	858	988	1089	1110	914	9961	106	811	927	1091	1211	1284	1302	1325
AK405	Fairbanks, AK	639	639	639	699	797	882	943	966	1052	789	957	1032	1032	902	915	1004	743	835	982	1092	1148	1182	1235
AL001	Anniston/Fort McClellan, AL	314	314	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
AL002	Fort Rucker, AL	302	302	317	341	392	436	472	506	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
AL003	Huntsville, AL	399	399	399	402	405	436	484	529	617	495	548	611	630	550	554	625	438	490	587	691	799	854	870
AL004	Mobile, AL	310	310	317	368	406	444	488	539	587	475	551	616	652	516	556	629	421	477	569	649	791	821	848
AL005	Montgomery, AL	355	355	360	385	441	493	520	538	598	493	519	586	635	512	528	595	456	480	592	666	752	806	848
AL006	Auburn, AL	414	414	414	438	458	479	503	539	578	463	488	557	607	488	521	588	415	459	541	649	736	764	848
AL007	Birmingham, AL	376	376	376	409	443	484	526	567	638	535	579	647	665	577	588	662	479	524	633	710	836	869	889
AL008	Tuscaloosa, AL	409	409	409	423	436	450	520	555	606	507	541	617	652	532	564	642	438	483	600	690	806	841	883
AR009	Blytheville AFB, AR	305	305	317	341	392	436	494	541	602	459	516	567	617	504	535	605	410	459	545	663	743	796	848
AR010	Little Rock, AR	454	454	454	459	465	470	506	548	599	492	549	596	644	528	560	633	454	477	598	670	790	796	848
AR011	Pine Bluff, AR	325	325	325	358	423	463	533	580	617	494	554	605	653	540	559	644	422	481	582	715	788	790	849
AR012	Fort Chaffee/Fort Smith, AR	315	315	317	341	392	436	473	508	565	425	484	527	574	481	521	577	410	459	537	649	736	764	848
AZ013	Phoenix, AZ	435	435	435	446	516	571	634	696	728	625	663	732	811	635	635	854	527	559	750	834	1011	952	970
AZ014	Fort Huachuca, AZ	354	354	354	386	418	456	527	566	591	469	513	563	622	481	521	592	410	459	539	649	736	764	848
AZ015	Davis-Monthan AFB, AZ	385	385	385	416	448	506	516	621	621	543	579	658	714	546	560	655	441	484	641	714	886	886	902
AZ016	Yuma, AZ	459	459	459	491	540	612	659	692	763	621	663	731	803	665	680	775	549	594	716	828	922	922	933
AZ017	Navajo County, AZ	302	302	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
CA018	Oakland, CA	728	728	728	741	755	830	928	953	987	923	997	1080	1164	1008	1008	1176	832	897	999	1141	1307	1400	1425
CA019	San Francisco, CA	754	754	754	797	839	873	950	1038	1110	1042	1144	1215	1295	1091	1113	1277	934	965	1142	1487	1542	1542	1570
CA020	Castle AFB, CA	401	401	401	440	522	607	659	708	818	569	651	704	767	614	628	736	489	534	643	746	816	887	903
CA021	China Lake NAVYMPEN, CA	413	413	413	417	422	517	578	642	708	528	581	675	694	596	596	678	468	540	617	749	845	861	894
CA022	Fresno, CA	443	443	443	448	517	584	646	710	763	596	670	714	778	648	664	741	523	586	680	817	889	889	905
CA023	Lemoore NAS, CA	413	413	413	427	499	538	629	629	727	592	664	711	783	650	656	760	518	581	691	808	892	921	937
CA024	Camp Pendleton, CA	629	629	629	649	669	739	810	878	840	774	828	858	921	784	784	928	697	745	821	994	1081	1117	1192
CA025	Ventura, CA	738	738	738	758	779	853	911	968	1051	902	933	1037	1044	936	958	1028	841	906	968	1114	1212	1247	1300
CA026	Vandenberg AFB, CA	502	502	505	556	637	709	765	814	871	662	702	788	805	697	697	811	612	635	722	873	941	967	984
CA027	Marin/Sonoma, CA	632	632	632	677	804	848	929	992	1009	941	1042	1068	1171	984	1003	1096	849	917	1060	1163	1236	1322	1346
CA028	Bastrow/Fort Irwin, CA	431	431	431	463	496	549	581	701	778	551	588	691	691	605	605	680	491	561	594	749	840	858	909
CA029	George AFB, CA	452	452	452	475	498	581	628	700	788	585	624	718	739	630	633	717	508	567	645	782	897	914	977
CA030	Edwards AFB, CA	503	503	503	521	538	605	691	763	836	635	669	775	786	686	700	769	561	646	712	839	938	977	1042
CA031	San Bernardino, CA	605	605	605	621	637	653	720	768	820	682	730	812	843	704	711	798	605	649	731	888	1025	1074	1113
CA032	Twentynine Palms MCB, CA	381	381	381	382	402	467	532	547	678	505	557	625	652	521	521	629	415	470	543	702	814	924	981

\*Shaded rates represent an increase to 1992 HA rates.

Table P-1 Continued

HA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	Q1E	Q2E	Q3E	Q1	Q2	Q3	Q4	Q5	Q6	Q7
CA033	Beale AFB, CA	346	346	348	404	507	559	684	698	749	559	632	682	751	598	626	725	432	518	662	57	868	888	904
CA034	Sacramento, CA	541	541	541	565	589	652	740	783	842	657	732	785	852	680	724	837	551	601	749	141	991	1054	1073
CA035	Stockton, CA	526	526	526	558	589	656	733	733	847	635	728	779	837	675	701	802	544	610	716	164	943	982	1000
CA036	Vallejo/Travis AFB, CA	576	576	576	595	683	743	828	844	883	724	817	862	910	757	785	850	640	695	797	149	972	1045	1064
CA037	Los Angeles, CA	718	719	719	737	754	866	939	992	1021	996	1036	1132	1148	999	1009	1127	909	946	1058	1244	1370	1422	1476
CA038	San Diego, CA	614	614	614	630	646	730	795	838	868	839	866	935	978	845	891	993	741	785	898	1095	1230	1304	1358
CA039	Monterey, CA	623	623	623	633	712	778	896	939	1012	857	1010	1010	1087	899	945	1045	761	810	931	1147	1169	1286	1305
CA040	Bakersfield, CA	483	483	483	484	553	623	693	761	836	676	722	816	839	729	738	827	600	667	756	917	1011	1033	1071
CA041	Riverside, CA	605	605	605	620	635	717	780	831	846	722	762	838	873	753	753	823	635	708	778	908	977	1030	1116
CA042	Humboldt County, CA	419	419	440	489	559	649	704	735	783	601	656	722	776	661	672	761	534	584	697	814	903	906	923
CA044	Santa Clara County, CA	838	838	838	861	884	947	1041	1026	1036	1001	1105	1160	1215	1049	1110	1175	922	976	1088	1296	1369	1452	1479
CA392	San Luis Obispo, CA	698	698	698	699	700	700	701	750	795	698	710	764	832	698	700	794	698	698	702	878	956	966	984
CA393	Bridgeport, CA	425	425	425	448	535	578	636	677	722	613	670	731	788	662	680	761	546	612	719	811	904	928	944
CO045	Denver, CO	414	414	414	416	501	551	600	649	649	558	597	644	702	631	631	693	513	584	674	722	782	798	848
CO046	Colorado Springs, CO	348	348	348	376	406	453	501	531	583	493	551	618	655	550	550	621	430	482	577	549	748	764	848
CO047	Fort Collins, CO	412	412	412	451	489	511	587	629	670	535	577	612	677	601	604	658	493	544	614	700	776	782	848
CO048	La Junta/Rocky Ford, CO	411	411	411	419	428	436	472	508	551	419	484	527	574	481	521	577	411	459	537	349	736	764	848
CT049	New London, CT	574	574	574	605	636	727	793	799	846	731	782	874	934	767	822	895	654	701	808	973	1128	1128	1149
CT050	Hartford, CT	850	850	850	861	871	780	814	861	929	821	873	978	1047	865	926	1006	727	817	922	1082	1203	1218	1243
CT051	New Haven/Fairfield, CT	623	623	623	644	726	782	832	886	964	955	1040	1129	1204	1014	1083	1154	865	959	1074	1244	1386	1405	1431
DC053	Washington, DC Metro Area	718	719	719	739	760	842	916	937	1017	925	996	1049	1076	911	971	1042	839	874	992	1107	1193	1197	1247
DE054	Dover AFB, DE	471	471	471	489	508	534	613	697	773	610	648	700	761	622	640	720	531	563	660	780	861	861	877
DE055	Rehoboth Beach, DE	428	428	428	452	478	551	608	689	759	613	656	710	773	636	656	726	520	562	663	800	873	873	899
FL056	Eglin AFB, FL	343	343	352	396	448	488	537	585	611	509	545	611	672	539	576	646	463	494	603	741	818	886	902
FL057	Gainesville, FL	476	476	476	490	504	518	567	615	677	540	608	667	708	596	619	680	478	554	640	762	849	865	881
FL058	Jacksonville, FL	406	406	413	449	508	571	623	675	721	604	679	722	750	662	665	767	549	608	689	834	919	942	960
FL059	Patrick AFB, FL	405	405	405	451	493	550	611	651	726	592	617	697	738	590	641	721	496	576	696	815	921	931	948
FL060	Miami, FL	550	550	550	568	610	664	680	770	834	752	799	876	961	782	811	927	683	727	858	999	1233	1233	1255
FL061	Fort Lauderdale, FL	573	573	573	604	662	740	804	850	902	821	870	946	1014	852	882	983	758	821	917	1093	1188	1221	1243
FL062	Orlando, FL	484	484	484	515	545	604	665	705	760	648	656	748	813	641	703	793	558	643	725	843	997	997	1015
FL063	Panama City, FL	313	313	313	361	422	462	520	593	593	496	527	597	658	512	560	656	437	501	615	708	801	863	895
FL064	Pensacola, FL	363	363	363	369	424	450	511	545	560	467	519	574	624	499	521	605	430	459	569	649	764	908	924
FL065	Tallahassee, FL	507	507	507	520	533	546	559	623	655	563	601	676	743	604	626	728	507	576	669	779	922	933	940
FL066	Tampa, FL	468	468	468	496	524	579	630	695	746	631	664	754	830	619	688	786	558	573	735	868	1000	1021	1040
FL067	West Palm Beach, FL	653	653	653	662	672	681	705	775	837	738	780	849	925	772	792	888	670	740	836	986	1034	1114	1154

P-3

\*Shaded rates represent an increase to 1992 HA rates



Table P-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
FL068	Aslor, FL	350	350	357	393	469	511	541	616	683	562	600	669	714	589	623	694	472	550	639	779	867	869	885
FL069	Kay West, FL	856	856	856	871	887	903	928	966	1022	941	994	1058	1105	975	1017	1095	896	931	1061	1152	1252	1282	1305
FL070	Volusia County, FL	405	405	405	419	470	540	581	632	708	565	602	665	696	590	613	682	479	550	620	763	844	844	859
FL328	Avon Park-Sebring, FL	384	384	384	415	446	482	564	608	674	538	568	648	709	534	592	686	443	512	623	766	877	888	905
FL397	Polk County, FL	384	384	384	397	409	482	564	608	674	538	568	648	709	534	592	686	443	512	623	766	877	888	905
GA071	Atlanta, GA	495	495	495	518	542	597	654	686	710	640	646	734	773	653	653	731	563	634	696	806	921	897	913
GA072	Albany, GA	333	333	333	341	392	436	472	508	551	422	484	527	574	481	521	577	410	459	537	649	736	764	848
GA073	Fort Gordon, GA	393	393	393	421	448	490	504	580	612	492	541	603	647	555	555	603	491	504	585	658	786	850	866
GA074	Kings Bay/Brunswick, GA	418	418	418	446	475	542	578	641	684	542	624	675	732	636	653	694	532	574	661	775	902	902	918
GA075	Fort Benning, GA	373	373	373	374	422	459	497	565	621	506	539	593	642	521	541	609	480	484	555	661	775	786	848
GA076	Robins AFB, GA	373	373	373	392	410	465	495	517	600	474	497	559	609	493	521	587	410	459	537	649	736	764	848
GA077	Savannah, GA	443	443	443	464	484	525	574	621	653	516	550	652	690	633	633	674	547	570	610	747	837	843	890
GA078	Athens, GA	395	395	395	405	416	495	572	609	633	560	590	659	715	586	586	633	442	553	635	757	841	871	887
GA079	Dahlonega, GA	375	375	375	403	432	497	534	586	624	506	531	603	651	545	545	628	417	496	567	676	751	764	848
GA080	Fort Stewart, GA	348	348	348	357	398	439	487	524	566	485	513	573	634	551	578	615	511	517	581	702	786	791	848
GA081	Moody AFB, GA	348	348	348	370	392	467	503	546	600	453	505	556	601	500	521	579	410	459	537	649	736	764	848
HI408	Honolulu County, HI	927	927	927	951	975	999	1058	1152	1172	982	1068	1166	1166	1076	1110	1237	995	1055	1124	1309	1352	1360	1402
HI409	Hawaii County, HI	782	782	782	786	791	795	799	870	930	793	845	951	951	850	866	989	782	824	908	1062	1116	1116	1163
IA082	Des Moines, IA	447	447	447	459	470	507	560	626	655	531	585	647	696	582	595	672	468	530	643	717	807	807	848
IA083	Ames, IA	455	455	455	462	468	475	482	554	592	460	511	570	612	501	521	590	455	459	537	649	736	764	848
ID084	Boise, ID	392	392	392	405	419	490	555	589	627	490	545	629	682	555	572	652	434	494	594	720	809	834	849
ID085	Idaho Falls, ID	307	307	317	341	392	436	478	538	583	440	502	563	621	496	521	592	410	459	547	652	745	764	848
ID086	Mountain Home AFB, ID	372	372	372	382	392	436	472	517	563	419	484	527	576	481	521	577	410	459	537	649	736	764	848
ID087	Pocatello, ID	302	302	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
ID333	Moscow, ID/Pullman, WA	315	315	317	341	392	436	493	540	605	445	498	564	616	510	521	595	410	459	537	657	759	777	848
IL088	Charlottesville, IL	302	302	317	341	392	436	472	508	551	457	496	555	615	506	521	600	410	459	539	649	746	766	848
IL089	Rock Island, IL	406	406	406	420	434	448	474	542	592	440	489	540	601	492	521	582	410	459	537	649	736	764	848
IL090	Peoria, IL	417	417	417	425	432	439	485	551	603	482	517	582	642	527	535	618	417	467	565	658	763	788	848
IL092	Great Lakes NAVTRACEN, IL	593	593	593	603	613	624	691	730	820	758	805	882	883	795	812	885	688	770	839	999	1238	1238	1251
IL093	Scott AFB, IL	374	374	381	403	481	519	574	647	627	586	625	694	757	642	642	771	517	554	652	790	890	953	970
IL325	Chicago, IL	745	745	745	747	749	751	753	755	831	745	777	841	888	795	795	887	745	745	823	957	1120	1135	1170
IL335	Springfield/Decatur, IL	427	427	427	438	450	461	522	573	617	515	540	614	694	564	564	666	436	485	605	706	820	840	855
IL363	Winnebago, IL	431	431	431	447	464	480	521	579	660	517	548	629	640	565	566	645	436	513	592	727	824	882	898
IL366	Joliet Army Depot, IL	471	471	471	476	482	547	547	657	719	562	599	673	693	615	615	702	485	559	637	770	874	911	928
IN094	Indianapolis/Ft Harrison, IN	498	498	498	501	504	506	568	586	659	545	600	645	716	599	611	695	498	539	614	726	839	853	868

\*Shaded cells represent an increase to 1992 HA rates.

Table P-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
IN095	Grissom AFB, IN	358	358	358	375	392	436	485	508	568	419	484	527	574	481	521	577	410	459	537	649	736	764	848
IN096	Lafayette, IN	443	443	443	446	449	491	546	600	656	481	538	583	644	539	539	625	443	473	549	645	740	764	848
IN097	Fort Wayne, IN	428	428	428	446	465	492	540	593	639	533	592	638	705	588	593	678	482	531	622	736	822	834	849
IN099	South Bend, IN	488	488	488	484	500	506	512	519	589	488	506	565	597	518	521	586	488	488	537	659	747	791	848
IN337	Evansville, IN	409	409	408	418	427	436	486	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
IN338	Terre Haute, IN	398	398	398	410	423	436	472	508	551	456	493	557	592	501	521	581	410	459	537	649	737	764	848
IN367	Gary, IN	464	464	464	479	495	510	544	601	674	529	576	637	673	594	594	669	464	532	613	730	824	884	904
IN399	Bloomington, IN	424	424	424	442	461	491	558	598	635	513	549	619	639	555	569	638	456	505	566	697	782	792	846
KS100	Fort Riley, KS	384	384	384	388	392	436	493	526	573	484	529	579	645	495	521	587	431	459	537	649	736	764	848
KS101	Wichita McConnell AFB, KS	379	379	379	390	436	483	563	563	606	574	621	700	762	613	622	711	455	501	595	675	757	778	849
KS102	Fort Leavenworth, KS	386	386	386	406	426	488	537	575	619	505	562	624	695	547	564	657	455	501	595	675	757	778	849
KS104	Lawrence, KS	407	407	407	439	470	539	586	630	658	567	620	687	751	603	616	712	521	561	653	740	831	849	870
KS105	Topeka, KS	367	367	367	370	416	453	502	561	590	511	555	622	685	537	547	640	462	501	591	671	754	764	848
KY106	Fort Campbell, KY	338	338	338	341	392	436	472	508	551	411	484	527	574	481	521	577	410	459	537	649	736	764	848
KY107	Lexington, KY	398	398	398	412	426	480	525	589	628	520	546	608	659	560	573	627	448	499	589	715	756	809	849
KY109	Louisville, KY	423	423	423	428	432	436	472	537	568	510	540	614	664	545	577	631	428	506	587	728	839	846	865
KY110	Fort Knox, KY	302	302	317	341	392	436	472	508	555	419	484	527	574	481	521	577	410	459	537	649	736	764	848
LA113	England AFB, LA	351	351	351	371	392	436	472	526	576	441	441	540	624	506	521	584	423	459	537	654	750	768	848
LA114	Baton Rouge, LA	334	334	335	393	441	505	546	609	654	504	555	619	652	540	558	645	451	508	584	697	800	818	848
LA115	Fort Polk, LA	302	302	317	341	392	436	490	522	595	419	484	527	583	481	521	577	410	459	537	649	736	764	848
LA116	New Orleans, LA	414	414	414	435	455	504	558	603	608	535	590	672	672	555	590	662	464	527	593	698	817	872	887
LA117	Shreveport-Barksdale AFB, LA	352	352	352	370	426	460	500	525	574	486	536	606	672	542	542	658	444	511	599	685	782	819	848
LA118	Lafayette, LA	327	327	329	361	411	467	565	591	645	481	538	608	669	546	546	650	452	501	588	725	823	860	881
LA326	St Mary and Terrebonne, LA	302	302	317	342	409	448	509	569	603	469	511	569	604	493	521	598	410	460	541	649	748	764	848
LA370	Lake Charles, LA	379	379	379	392	434	464	539	587	649	496	544	616	691	554	554	658	473	518	616	737	823	854	882
LA371	Monroe, LA	311	311	317	350	398	445	511	550	594	474	533	597	669	534	534	635	422	490	584	698	792	818	848
MA120	Boston, MA	853	853	853	857	861	866	870	913	982	969	1019	1145	1210	1004	1083	1194	863	915	1092	1353	1490	1490	1518
MA121	Cape Cod, MA	604	604	604	616	628	657	786	802	850	689	715	818	858	718	755	838	804	834	921	1088	1206	1206	1237
MA122	Worcester, MA	674	674	674	691	709	726	845	851	916	807	846	960	1017	814	896	998	704	795	907	1083	1211	1219	1263
MA123	Fort Devens/Ayer, MA	543	543	543	573	675	750	836	836	914	832	875	977	1033	867	924	1029	743	808	912	1081	1266	1266	1289
MA124	Brockton/S Weymouth, MA	814	814	814	829	845	861	895	992	1014	940	983	1101	1154	980	1034	1139	853	932	1076	1200	1347	1351	1382
MA125	Essex Co, MA	834	834	834	841	848	858	863	870	935	834	863	971	1019	860	912	1001	834	834	921	1088	1206	1206	1237
MA126	Hampden County, MA	562	562	562	581	620	649	738	787	838	664	707	816	881	704	749	835	562	649	740	929	1038	1050	1071
MA377	Hanscomb AFB, MA	834	834	834	861	888	915	943	989	1038	889	927	1043	1091	925	996	1081	834	868	995	1166	1307	1307	1330
MD127	Aberdeen Proving Grounds, MD	445	445	445	485	525	571	647	650	782	646	698	753	816	665	685	772	570	596	699	809	890	915	912

\*Shaded rates represent an increase to 1992 HA rates

P-5

Table P-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
MD128	Annapolis, MD	685	685	685	682	699	742	835	920	979	819	862	924	984	841	868	940	738	774	867	1045	1090	1107	1127
MD129	Baltimore, MD	600	600	600	621	642	699	747	825	878	805	865	891	968	828	853	923	713	758	856	984	1064	1095	1114
MD130	Fort Detrick, MD	565	565	565	584	603	666	768	800	857	705	747	807	857	722	748	834	632	665	751	869	948	980	998
MD131	Fort Riche, MD	450	450	450	467	485	502	610	656	739	531	581	630	689	553	578	648	456	488	607	697	784	785	848
MD133	Fort G. G. Meade, MD	685	685	685	707	730	766	831	880	939	830	874	934	984	843	876	940	760	800	903	1004	1059	1092	1112
MD134	Indian Head NAVORDSTA, MD	759	759	759	764	770	832	864	917	974	770	812	860	911	794	813	855	759	759	813	925	979	1008	1026
MD135	Patuxent River, MD	600	600	600	622	644	715	753	793	874	761	819	857	925	817	828	900	703	743	829	940	1031	1048	1057
ME136	Brunswick, ME	652	652	652	666	680	694	709	710	792	693	761	803	870	730	777	838	652	707	740	902	989	1003	1021
ME137	Loring AFB, ME	327	327	327	328	371	427	490	532	592	545	597	639	685	561	613	606	410	459	537	664	740	764	848
ME139	Portland, ME	552	552	552	570	588	677	713	776	820	712	761	837	903	749	784	870	634	714	782	963	1060	1068	1093
ME140	Port Harbor, ME	452	452	452	460	467	511	576	617	666	569	639	685	739	606	641	718	507	572	659	774	857	861	877
ME390	Bangor, ME	522	522	522	530	538	546	618	666	719	607	676	722	775	646	680	754	548	611	696	819	897	904	920
MI142	Detroit, MI	617	617	617	621	625	629	632	636	718	703	764	852	921	747	784	903	621	694	804	1042	1114	1131	1169
MI143	KI Sawyer AFB, MI	399	399	399	421	444	467	561	588	650	492	546	611	668	545	557	642	417	471	591	694	803	820	848
MI145	Sault Ste Marie, MI	314	314	317	341	392	436	472	524	585	420	484	529	584	481	521	577	410	459	537	649	736	764	848
MI146	Traverse City, MI	518	519	519	533	546	559	614	673	726	611	673	733	788	672	675	760	548	612	704	833	954	954	988
MI148	Muskegon, MI	529	529	529	540	550	561	571	582	649	529	568	634	670	568	569	652	529	529	599	733	828	858	873
MI149	Port Huron, MI	457	457	457	474	491	508	567	620	669	572	623	695	764	616	637	726	497	559	660	802	898	925	966
MI150	Wurtsmith AFB, MI	434	434	434	451	467	484	486	555	611	434	484	533	589	487	521	577	434	459	537	649	736	764	848
MI152	Battle Creek/Kalamazoo, MI	419	419	419	424	428	484	536	589	640	538	603	664	747	588	598	692	463	532	636	748	862	887	938
MI153	Lansing, MI	519	519	519	524	528	533	537	606	650	519	557	624	687	550	560	632	518	519	586	702	791	806	849
MI154	Grand Rapids, MI	524	524	524	529	534	539	589	630	684	574	633	697	756	629	630	723	524	577	670	798	902	932	956
MI155	Ann Arbor, MI	582	582	582	599	617	662	714	784	828	639	747	823	882	737	760	834	633	699	796	899	1019	1029	1048
MI156	Saginaw, MI	452	452	452	454	456	457	528	581	628	521	565	633	692	566	568	648	452	508	595	722	809	821	848
MI341	Flint, MI	447	447	447	464	482	499	554	615	669	555	604	678	739	603	612	697	481	543	639	773	865	883	913
MN158	Duluth, MN	525	525	525	528	532	535	539	542	603	525	533	588	653	525	525	621	525	525	562	692	781	738	848
MN159	Minneapolis/St Paul, MN	546	546	546	557	568	636	693	748	775	742	742	809	887	746	762	845	629	702	767	963	1037	1037	1050
MO160	Kansas City, MO	448	448	448	451	454	511	609	621	644	555	618	678	751	611	634	713	507	557	653	752	863	868	893
MO161	St Louis, MO	404	404	411	420	483	540	582	625	661	590	637	694	752	642	642	745	526	565	721	773	858	960	977
MO162	Whiteman AFB, MO	302	302	317	341	392	436	481	545	580	419	484	535	583	481	521	577	410	459	537	643	736	764	848
MO163	Fort Leonard Wood, MO	302	302	317	341	392	436	472	528	570	419	484	535	583	481	521	577	410	459	537	643	736	764	848
MO164	Springfield, MO	342	342	342	369	395	451	506	557	608	458	511	577	625	514	534	601	410	460	544	653	738	764	848
MO165	Columbia/Jefferson City, MO	346	346	346	369	393	454	491	556	590	446	505	567	620	510	521	597	410	459	537	643	736	764	848
MS168	Gulfport, MS	339	339	339	341	392	436	478	529	572	443	507	576	606	481	521	577	410	459	537	643	745	764	848
MS169	Columbus AFB, MS	302	302	317	341	392	453	485	526	595	478	502	559	603	484	521	581	410	459	537	643	747	764	848

Table P-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	JTE	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
MS170	Jackson, MS	358	358	358	384	430	479	517	572	626	495	521	576	535	514	532	603	418	466	550	649	749	764	848
MS171	Meridian, MS	319	319	319	341	392	436	488	538	599	453	484	539	598	481	521	577	410	459	537	649	736	764	848
MS172	Hattiesburg, MS	329	329	329	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
MT175	Mammoth AFB, Great Falls, MT	302	302	317	341	392	436	495	536	582	419	484	527	574	481	521	577	410	459	537	649	736	764	848
NC177	Morehead City, NC	329	329	333	375	425	469	500	565	565	521	521	561	642	542	542	592	456	492	569	696	748	771	848
NC178	Camp Lejeune, NC	320	320	331	368	417	465	502	524	551	542	542	607	669	544	544	585	492	547	579	670	788	788	848
NC179	Charlotte, NC	472	472	472	479	485	502	506	575	551	536	556	608	673	571	571	639	481	541	600	704	731	818	848
NC180	Durham, Chapel Hill, NC	488	488	488	500	512	524	564	604	663	600	618	688	756	634	646	709	546	600	669	772	882	894	910
NC181	Elizabeth City, NC	339	339	339	382	437	478	531	579	635	547	581	623	673	603	609	652	464	517	603	718	797	806	848
NC182	Fort Bragg, Pope AFB, NC	358	358	358	384	440	480	505	564	600	543	532	577	663	541	541	589	477	511	557	649	736	764	848
NC183	Seymour Johnson AFB, NC	398	398	398	412	427	491	523	539	581	536	536	591	657	561	561	603	479	532	571	653	766	766	848
NC184	Greensboro, NC	425	425	425	439	453	467	559	594	648	580	606	672	740	619	619	693	519	573	669	768	880	909	931
NC185	Raleigh, NC	468	468	468	457	593	597	680	690	742	649	656	715	787	689	689	746	602	650	705	794	911	911	927
NC186	Wilmington, NC	419	419	419	436	454	493	534	589	620	602	602	661	733	631	631	687	543	592	671	759	857	884	903
ND188	Bismarck, ND	351	351	351	372	392	436	473	508	551	423	484	534	595	481	521	577	410	459	537	649	736	764	848
ND189	Fargo, ND	412	412	412	435	458	470	560	588	644	511	561	621	670	541	566	649	442	497	565	709	793	793	848
ND190	Grand Forks, ND	457	457	457	462	466	471	475	528	565	483	537	601	654	521	542	633	457	459	537	711	790	811	848
ND191	Minot AFB, ND	302	302	317	367	392	436	472	508	551	419	484	532	588	461	521	577	410	459	537	649	736	764	848
NE192	Omaha, Offutt AFB, NE	461	461	461	474	487	551	612	645	654	541	600	655	708	576	584	693	461	540	653	728	798	856	949
NE193	Lincoln, NE	419	419	419	430	440	494	550	576	649	492	529	584	645	509	537	619	419	472	577	662	736	764	848
NH194	Portsmouth, NH, Killery, ME	628	628	628	640	653	666	720	780	833	686	732	817	874	715	752	835	628	561	764	960	1051	1051	1072
NH195	Manchester, Concord, NH	498	488	488	522	624	670	719	806	853	733	767	873	927	767	812	907	638	721	807	1011	1114	1114	1142
NJ196	Atlantic City, NJ	568	568	568	576	584	699	756	799	861	725	765	826	880	777	758	810	653	670	781	916	984	961	979
NJ197	Cape May, NJ	567	567	567	573	578	627	740	748	822	655	679	734	796	669	680	751	567	594	702	807	884	884	903
NJ198	Fort Monmouth, Earls NWS, NJ	713	713	713	732	752	771	896	901	967	913	985	1041	1126	963	985	1079	836	875	1008	1150	1264	1264	1291
NJ201	Penn Amboy, NJ	707	707	707	714	721	728	869	891	943	909	977	1036	1115	956	990	1082	832	893	1017	1153	1295	1295	1313
NJ202	Northern New Jersey	727	727	727	740	752	764	777	851	915	839	902	964	1046	891	908	996	753	807	897	1079	1231	1202	1224
NJ203	Trenton, NJ	667	667	667	669	670	752	826	864	923	810	858	928	1005	855	878	963	731	798	904	1030	1141	1147	1160
NJ204	Fort Dix, McGuire Lakehurst, NJ	533	533	533	580	626	665	687	818	841	712	763	828	902	757	759	845	630	675	783	900	1037	1007	1025
NM205	Holoman AFB, Alamogordo, NM	328	328	328	341	392	436	472	536	560	419	484	543	607	481	521	577	410	459	537	649	736	764	848
NM206	Abilene, Kirtland AFB, NM	427	427	427	462	498	545	603	634	726	550	578	635	683	578	591	652	460	490	582	697	833	812	848
NM207	Cannon AFB, Clovis, NM	303	303	317	341	392	436	472	534	589	462	512	577	635	502	521	619	410	459	572	682	771	790	848
NM208	Ga. do NM	307	307	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
NM209	Wheeler, Las Cruces, NM	392	392	392	392	392	437	509	543	588	467	520	606	681	512	544	632	448	490	581	708	797	826	861
NM210	Santa Fe, Los Alamos, NM	512	512	512	532	553	573	620	678	734	615	648	704	756	643	658	726	518	576	686	793	876	876	894

Table P-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6
NY211	Fallon NAS, NV	420	400	413	466	529	555	620	678	730	606	662	726	792	660	578	770	547	610	700	822	331	936
NY212	Nellis AFB/Las Vegas, NV	504	504	504	523	572	642	699	720	777	654	715	775	832	712	712	791	582	630	776	870	1041	1060
NY213	Carson City, NV	475	475	491	533	603	665	709	752	812	670	732	797	862	726	745	834	603	680	733	879	990	1003
NY215	Balloon Spa, Albany, NY	591	591	591	602	613	624	664	758	785	591	651	732	803	674	693	797	591	613	717	799	976	955
NY216	Buffalo, NY	462	462	462	466	470	473	477	582	643	542	583	667	719	587	587	691	466	538	643	765	862	881
NY217	West Point, NY	671	671	671	680	688	758	835	904	956	838	928	1006	1089	928	959	1036	792	860	995	1091	1246	1252
NY218	Long Island, NY	941	941	941	941	941	941	942	942	942	941	941	985	1059	941	944	1016	941	941	966	1076	1130	1211
NY219	New York City, NY	862	862	862	875	899	902	915	929	942	862	911	985	1059	898	944	1016	862	862	966	1076	1130	1211
NY220	Plattsburgh, NY	498	498	498	511	524	537	549	643	655	541	599	650	722	602	610	690	498	530	646	755	840	858
NY221	Rochester, NY	528	528	528	542	555	569	612	679	725	550	620	721	763	650	650	729	533	577	694	799	893	903
NY222	Rome Griffiss AFB, NY	443	443	443	458	472	523	597	628	727	454	567	665	719	593	593	706	472	519	608	716	791	819
NY223	Saratoga Springs, NY	493	493	493	493	496	498	500	582	647	721	582	699	802	719	732	854	568	639	804	912	1024	1054
NY225	Fort Drum, Watertown, NY	488	488	488	488	489	490	565	595	674	488	558	647	703	579	579	662	488	496	588	702	799	818
NY226	Binghamton, Ithaca, NY	458	458	458	472	486	547	631	636	699	536	633	724	780	667	667	752	525	585	690	798	891	905
NY343	Westchester County, NY	1007	1007	1007	1013	1019	1026	1032	1039	1045	1007	1054	1138	1230	1057	1094	1183	1007	1037	1162	1274	1424	1466
NY395	Jamestown, NY	407	407	407	421	435	448	499	563	623	489	526	604	656	538	540	628	410	484	575	705	783	798
OH227	Akron, OH	506	506	506	512	518	525	531	597	675	558	619	663	727	603	630	694	506	558	629	779	886	911
OH228	Cincinnati, OH	439	439	439	464	489	516	594	617	646	505	527	580	624	546	562	604	449	493	563	651	751	764
OH229	Cleveland, OH	548	548	548	559	570	581	592	703	757	636	695	755	827	677	714	792	571	636	723	888	1007	1046
OH230	Columbus, OH	421	421	421	438	455	511	558	619	654	537	576	635	704	579	591	663	471	512	638	745	864	864
OH231	Wright Patterson AFB, OH	471	471	471	472	472	499	565	638	654	543	575	638	704	598	600	683	491	525	623	746	821	852
OH232	Toledo, OH	431	431	431	440	449	469	522	593	656	531	576	648	708	568	591	671	460	521	605	749	842	855
OH233	Youngstown, OH	380	380	380	386	392	466	492	533	631	484	507	555	616	510	521	591	410	459	537	655	755	768
OH382	Mansfield, OH	311	311	317	341	392	436	477	523	600	457	496	560	631	497	521	597	410	459	544	673	780	805
OK235	Altus AFB, OK	302	302	317	341	392	436	472	508	551	440	490	544	590	481	521	577	410	459	537	649	736	764
OK236	Vance AFB/End, OK	302	302	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764
OK237	Fort Sill/Lawton, OK	304	304	317	341	392	436	472	508	551	438	484	535	584	481	521	577	410	459	537	649	736	764
OK239	Oklahoma City, OK	331	331	331	366	414	450	516	529	551	444	488	558	601	488	521	583	410	459	541	649	736	764
OK240	Tulsa, OK	406	406	406	425	443	476	513	549	607	476	501	578	625	516	528	604	410	456	544	658	744	764
OR241	Astoria, OR	365	365	365	384	403	475	514	577	634	514	593	637	673	563	597	666	456	512	622	735	813	813
OR242	Coos Bay, OR	305	305	317	348	426	481	550	585	636	477	531	596	657	517	542	641	410	459	577	678	775	777
OR243	Portland, OR	510	510	510	517	525	532	633	650	684	564	629	675	714	609	638	691	510	568	646	759	878	878
OR244	Salem, OR	360	360	360	398	448	502	565	612	650	532	581	623	675	573	603	662	464	529	608	709	737	737
OR245	Corvallis, OR	395	395	395	427	459	521	579	623	666	494	544	586	639	527	560	627	420	491	555	674	775	764
OR246	Eugene, OR	440	440	440	456	493	519	543	584	628	509	561	617	671	544	578	657	443	506	597	709	731	819

Table P-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	Q2E	Q3E	Q1	Q2	Q3	Q4	Q5	O6	O7
PA247	Carlisle Barracks, PA	495	495	495	505	518	527	576	639	741	557	605	653	723	574	606	650	495	520	625	755	800	810	848
PA248	Philadelphia, PA/Camden, NJ	627	627	627	636	645	654	749	829	892	797	828	900	978	820	829	912	682	720	893	1009	1082	1119	1139
PA249	NAS Willow Grove, PA	582	582	582	619	696	759	822	914	965	879	919	987	1066	904	917	1058	773	828	970	1089	1229	1229	1251
PA250	Pittsburgh, PA	499	499	499	507	515	522	530	535	528	575	615	674	584	584	620	499	523	603	696	809	814	848	
PA251	Reading, PA	525	525	525	542	559	576	615	699	787	665	702	763	827	688	698	784	565	619	721	854	929	929	946
PA252	State College, PA	565	565	565	570	575	580	585	639	704	565	605	664	712	609	609	696	565	565	629	758	834	841	857
PA253	Erie, PA	452	452	452	467	482	497	512	550	625	495	535	604	655	539	559	636	452	496	580	705	806	824	848
PA254	Wilkes-Barre/Scranton, PA	500	500	500	512	524	538	548	560	645	508	574	628	705	560	570	667	500	500	599	727	809	810	848
PA255	Allentown/Bethlehem, PA	525	525	525	533	541	624	709	749	819	701	750	818	897	742	762	854	615	679	791	932	1029	1032	1051
PA380	Letterkenny Army Depot, PA	350	350	350	374	399	462	540	604	685	518	564	620	681	541	562	639	439	479	581	690	748	764	848
PA383	Johnstown, PA	383	383	383	388	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
RI256	Newport, RI	753	753	753	759	764	770	853	853	925	757	800	906	945	764	841	940	753	753	815	1010	1112	1112	1135
RI257	Providence, RI	670	670	670	685	700	714	729	729	817	698	764	844	895	729	788	890	670	670	760	946	1063	1072	1112
SC258	Beaufort/Parris Island, SC	371	371	378	416	465	509	571	604	640	501	548	590	644	592	592	630	507	550	581	701	791	793	848
SC259	Charleston, SC	411	411	411	435	460	506	545	617	669	538	608	648	710	654	654	660	533	568	646	792	879	879	924
SC260	Columbia/Fort Jackson, SC	400	400	400	408	459	515	521	623	639	556	610	667	707	626	626	668	520	556	638	735	880	935	952
SC261	Greenville, SC	424	424	424	435	445	456	487	585	620	516	566	622	680	555	555	565	447	515	618	730	841	880	896
SC262	Myrtle Beach AFB, SC	366	366	377	413	454	523	544	601	644	566	573	630	692	619	619	642	507	546	596	736	833	833	849
SC263	Sumter/Shaw AFB, SC	330	330	330	369	421	477	532	559	591	481	513	552	608	528	528	577	430	463	537	665	736	766	848
SD264	Rapid City/Eisworth AFB, SD	428	428	428	439	450	462	481	582	627	502	534	588	651	53	353	7625	432	496	504	698	798	801	848
SD265	Sioux Falls, SD	388	388	388	416	444	517	536	599	639	535	585	644	699	58	659	7672	467	529	615	744	826	826	848
TN266	Chattanooga, TN	396	396	396	408	421	490	516	579	621	508	550	618	655	556	556	645	443	506	585	678	772	796	848
TN267	Knoxville, TN	436	436	436	442	448	454	472	542	600	469	528	589	636	525	536	616	436	475	575	666	767	786	848
TN268	Memphis, TN	450	450	450	454	457	460	519	566	599	506	575	597	655	547	585	637	450	495	598	660	807	845	848
TN269	Nashville, TN	434	434	434	450	465	519	570	611	621	492	528	606	654	545	545	639	473	516	593	666	781	817	848
TN353	Johnson City/Kingsport, TN	425	425	425	429	433	436	485	533	585	436	486	548	599	496	521	577	425	459	537	649	736	764	848
TN354	Manchester/Tulahoma, TN	333	333	333	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
TX270	Arlene/Dyess AFB, TX	317	317	328	366	413	466	526	580	609	500	551	616	683	543	557	660	421	468	616	688	827	827	848
TX271	Amarillo, TX	332	332	332	341	392	436	483	544	587	450	498	563	618	493	521	593	410	459	537	654	745	764	848
TX272	Austin Bergstrom AFB, TX	397	397	397	412	488	544	589	642	659	534	573	652	718	591	591	730	492	538	662	765	864	922	939
TX273	Baumont, TX	347	347	347	366	431	495	552	581	649	474	512	591	656	548	548	629	446	492	585	687	763	818	848
TX274	College Station, TX	417	417	417	437	457	543	578	629	683	518	558	629	694	570	570	667	484	536	618	747	855	881	937
TX275	Corpus Christi, TX	378	378	378	394	455	530	569	636	680	538	593	673	726	553	610	700	454	500	660	738	879	901	918
TX276	Kingsville, TX	333	333	333	367	447	511	558	606	671	497	553	625	672	517	562	652	418	459	560	750	822	835	851
TX277	Dallas, TX	443	443	443	479	545	599	654	696	739	606	651	716	791	675	676	746	565	630	743	808	908	935	952

Table P-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
TX278	Laughlin AFB/Del Rio, TX	302	302	317	341	411	470	514	577	626	442	489	546	597	481	521	577	410	459	537	649	742	764	849
TX279	El Paso, TX	412	412	412	426	440	454	505	508	551	451	484	571	670	499	533	617	457	476	551	655	774	851	867
TX280	Galveston, TX	417	417	417	449	480	532	581	660	722	607	667	734	774	679	679	763	537	615	704	835	940	978	996
TX281	Brownsville, TX	338	338	338	357	418	472	546	615	661	505	555	627	676	535	572	656	426	484	586	731	824	844	859
TX282	Houston, TX	387	387	387	446	514	589	617	683	738	578	635	724	738	651	656	724	503	569	679	737	914	949	966
TX283	Lubbock/Reese AFB, TX	352	352	352	378	403	459	503	554	606	509	554	616	669	543	563	651	455	526	591	711	810	820	848
TX284	Goodfellow AFB, TX	382	382	382	392	402	459	488	553	606	487	542	608	670	524	552	656	410	466	605	687	792	813	848
TX285	San Antonio, TX	388	388	388	419	450	504	537	573	611	501	554	663	728	569	569	678	435	494	611	730	794	809	848
TX286	Fort Hood, TX	317	317	317	341	408	461	495	555	599	453	484	552	600	501	521	583	442	477	537	671	736	764	849
TX287	Texas, TX	331	331	339	377	448	500	535	580	625	526	576	644	696	579	579	667	451	531	623	724	813	817	848
TX288	Wichita Falls Sheppard AFB, TX	377	377	377	399	422	453	517	555	575	508	557	610	659	536	562	625	444	494	596	672	751	807	848
TX289	Beville, TX	302	302	317	341	392	441	495	568	610	456	505	584	628	505	521	610	410	459	558	682	773	773	845
TX356	Fort Worth, TX	430	430	430	431	500	567	621	639	696	548	598	666	727	607	607	702	521	554	658	786	863	865	881
UT291	Ogden Hill AFB, UT	351	351	351	378	405	436	500	556	570	443	491	549	592	482	521	577	410	459	537	649	736	764	849
UT292	Salt Lake City, UT	431	431	431	437	442	448	506	545	591	472	523	579	628	515	541	594	431	461	570	649	736	764	849
UT357	Provo, UT	376	376	376	384	392	436	472	508	551	421	484	537	588	481	521	577	410	459	537	649	736	764	849
VA295	Charlottesville, VA	539	539	539	585	591	618	644	679	735	604	661	707	763	619	655	724	539	575	665	764	862	862	878
VA296	Quantico/Woodbridge, VA	581	581	581	613	644	720	787	794	846	788	858	916	952	788	834	910	718	739	843	955	1047	1074	1074
VA297	Hamp on/Newport News, VA	422	422	422	441	501	577	633	666	691	621	664	723	740	674	685	741	538	586	630	796	873	880	873
VA298	Norfolk/Portsmouth, VA	421	413	428	478	537	598	652	668	726	673	758	730	793	730	731	773	585	623	728	832	949	978	945
VA300	Petersburg/Fort Lee, VA	384	384	384	405	457	530	576	603	673	552	611	641	694	612	620	667	474	515	595	738	823	831	839
VA301	Richmond, VA	464	464	464	480	496	513	624	641	723	583	642	673	729	641	651	683	503	563	617	776	845	861	877
VA302	Warrenton/Vint Hill Farm, VA	587	587	587	599	651	728	801	802	899	959	833	865	921	983	845	877	763	797	865	1000	1106	1106	1126
VA303	Lexington, VA	302	302	317	341	393	454	516	575	625	499	552	607	644	540	553	624	426	481	575	670	767	768	845
VA304	Wallops Island, VA	413	413	413	440	467	513	571	625	677	593	648	687	748	658	663	739	506	558	660	795	869	880	919
VA362	Roanoke, VA	425	425	425	429	433	436	495	541	596	466	519	579	627	512	528	598	425	461	551	657	753	768	848
VA368	Camp A P Hill, VA	514	514	514	545	577	607	679	726	786	629	678	725	780	670	684	732	575	598	670	757	879	881	837
VT305	Burlington, VT	576	576	576	600	624	649	679	733	793	653	708	759	834	713	724	800	589	651	747	868	972	987	1005
WA306	Bremerton, WA	441	441	441	462	533	614	668	694	796	613	683	742	782	674	714	747	585	635	727	836	857	886	902
WA307	Everett, WA	482	482	482	496	554	624	697	742	757	828	862	771	816	859	747	775	632	709	783	870	967	967	965
WA308	Port Angeles, WA	349	349	349	371	392	463	522	572	638	467	535	597	633	530	545	612	410	489	553	665	736	764	849
WA309	Seattle, WA	463	463	481	493	601	669	707	723	792	700	778	836	897	770	799	858	620	738	855	902	1050	1050	1063
WA310	Spokane, WA	346	346	346	355	425	451	527	547	625	451	500	562	612	508	521	587	410	462	537	649	772	772	848
WA311	Tacoma, WA	416	416	416	446	475	545	594	645	681	580	665	725	740	634	668	741	517	564	671	781	834	890	906
WA312	Whidbey Island, WA	474	474	474	474	551	628	669	718	811	514	686	751	769	677	689	756	568	637	714	799	859	875	891

Table P-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
WA313	Yakima, WA	444	444	444	480	478	492	555	592	655	520	587	650	689	571	590	665	454	519	616	718	797	812	848
WA315	Aberdeen, WA	302	302	317	341	392	490	538	581	635	471	544	594	638	527	555	616	410	474	560	663	741	764	848
WI316	Madison, WI	481	481	481	487	512	551	598	649	729	603	637	706	740	652	655	733	528	597	693	797	896	929	945
WI317	Milwaukee, WI	567	567	567	596	624	653	681	714	731	580	620	683	687	618	616	686	567	581	662	761	885	922	939
WI318	Sparta/Fort McCoy, WI	351	351	351	383	414	449	502	547	609	490	552	599	641	491	521	577	410	459	537	649	736	764	848
WI319	Oshkosh/Appleton, WI	375	375	375	389	422	464	503	565	620	496	538	590	642	533	546	624	420	480	561	684	763	766	848
WI358	Green Bay, WI	377	377	377	395	413	436	509	558	612	480	534	588	644	528	538	621	410	467	555	690	775	776	848
WI359	Stevenspoint, WI	380	380	380	412	444	476	563	607	664	539	595	662	716	591	605	689	464	529	628	752	847	860	869
WV320	Morgantown, WV	431	431	431	433	434	436	472	508	571	431	484	527	574	481	521	577	431	459	537	649	736	764	848
WV321	Sugar Grove, WV	302	302	317	341	392	436	472	508	551	427	484	527	575	481	521	577	410	459	537	649	736	764	848
WV322	Huntington, WV	346	346	346	384	442	471	525	574	633	500	533	594	648	533	553	615	420	484	558	685	758	773	848
WV323	Charleston, WV	391	391	391	400	410	458	500	546	612	508	554	616	665	549	571	629	435	496	585	696	789	796	848
WV360	Beckley, WV	302	302	317	341	392	436	472	513	577	456	506	566	610	501	521	579	410	459	537	649	736	764	848
WV324	Cheyenne, WV	347	347	347	368	392	445	478	540	605	453	489	529	580	516	521	577	425	459	537	649	736	764	848
ZZ530	County Cost Group	302	302	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
ZZ540	County Cost Group	308	309	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
ZZ550	County Cost Group	302	302	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
ZZ560	County Cost Group	302	302	317	341	392	436	472	508	551	424	484	527	574	481	521	577	410	459	537	649	736	764	848
ZZ570	County Cost Group	312	312	317	341	392	436	472	508	551	428	484	527	574	481	521	577	410	459	537	649	736	764	848
ZZ580	County Cost Group	302	302	317	341	392	436	472	508	551	432	484	527	574	481	521	577	410	459	537	649	736	764	848
ZZ590	County Cost Group	324	324	324	341	392	436	472	508	551	440	484	527	574	481	521	577	410	459	537	649	736	764	848
ZZ600	County Cost Group	320	320	320	341	392	436	472	508	551	445	484	530	574	481	521	577	410	459	537	649	736	764	848
ZZ610	County Cost Group	306	306	317	341	392	436	472	508	551	453	484	540	581	491	521	577	410	459	537	649	736	764	848
ZZ620	County Cost Group	334	334	334	341	392	436	478	518	551	461	490	551	592	495	521	584	410	459	537	649	736	764	848
ZZ630	County Cost Group	335	335	335	341	398	442	487	528	562	465	500	567	604	505	521	590	411	459	537	649	736	764	848
ZZ640	County Cost Group	320	320	320	346	406	455	496	539	573	474	509	577	615	515	521	601	419	459	546	651	736	774	848
ZZ650	County Cost Group	442	442	442	450	457	484	511	549	584	482	519	588	632	524	529	613	442	469	557	664	754	789	848
ZZ660	County Cost Group	373	373	373	399	426	473	520	559	595	485	534	604	644	534	540	624	431	482	567	677	769	805	848
ZZ670	County Cost Group	371	371	381	414	488	547	599	615	642	537	608	650	710	610	592	662	486	525	625	759	845	847	856
ZZ680	County Cost Group	457	457	457	468	482	494	548	584	623	512	558	630	672	558	566	653	457	501	594	710	806	835	875
ZZ690	County Cost Group	387	387	387	420	453	507	558	594	634	524	572	646	684	568	576	665	460	514	605	723	821	858	901
ZZ700	County Cost Group	358	358	358	397	465	521	572	610	650	537	587	662	701	582	592	682	472	524	621	736	843	873	917
ZZ710	County Cost Group	373	373	373	407	477	534	586	625	667	549	601	672	718	596	607	694	480	537	637	755	857	889	947
ZZ720	County Cost Group	376	376	376	417	489	547	600	640	678	562	616	688	736	606	623	711	493	551	653	775	860	912	949

\*Shaded rates represent an increase to 1992 HA rates.



Tabpe P-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O1	O2	O3	O4	O5	O6	O7	
ZZ730	County Cost Group	444	444	444	472	500	560	614	650	694	574	630	704	747	621	633	728	505	565	670	788	902	935	985
ZZ740	County Cost Group	435	435	435	438	512	573	633	666	711	587	645	725	764	635	654	746	517	579	686	807	916	950	1011
ZZ750	County Cost Group	438	438	438	448	528	586	647	686	727	599	660	741	787	649	670	763	529	592	702	827	938	973	1036
ZZ760	County Cost Group	569	569	569	580	592	603	666	701	744	616	679	756	805	669	686	780	569	606	718	846	981	996	1062
ZZ770	County Cost Group	425	425	426	472	551	617	681	716	760	629	693	772	822	683	701	798	558	620	734	865	983	1019	1087
ZZ780	County Cost Group	437	437	438	485	567	634	699	732	782	646	713	793	839	702	722	815	570	638	756	885	1005	1042	1113
ZZ790	County Cost Group	447	447	448	499	583	651	714	752	799	662	727	809	862	717	743	838	587	637	772	911	1034	1064	1138
ZZ800	County Cost Group	578	578	578	588	598	664	732	767	815	679	747	830	879	736	758	855	603	670	793	931	1056	1087	1163
ZZ810	County Cost Group	472	472	473	526	610	682	751	787	838	696	766	851	902	755	779	878	620	689	809	957	1078	1110	1189
ZZ820	County Cost Group	603	603	603	614	626	699	770	803	854	713	785	867	925	775	800	901	636	707	831	978	1100	1133	1223
ZZ830	County Cost Group	623	623	623	634	645	721	789	823	876	733	805	888	942	794	826	919	652	725	852	1002	1130	1156	1248
ZZ840	County Cost Group	638	638	638	650	661	739	808	843	898	756	830	909	965	822	847	942	669	748	874	1028	1152	1187	1274
ZZ850	County Cost Group	653	653	653	665	677	756	832	864	915	771	848	930	988	832	868	965	685	767	895	1054	1181	1210	1308
ZZ860	County Cost Group	636	636	636	664	693	778	850	884	937	788	868	951	1011	852	894	988	706	790	917	1080	1203	1240	1333
ZZ870	County Cost Group	683	683	683	698	712	795	869	904	959	809	892	972	1034	876	915	1011	722	808	944	1106	1233	1263	1367
ZZ880	County Cost Group	624	624	624	636	732	817	893	925	981	830	911	993	1057	900	941	1040	742	831	965	1132	1262	1294	1392
ZZ890	County Cost Group	713	713	713	730	747	839	916	945	1003	851	936	1020	1086	919	967	1063	763	854	987	1164	1292	1317	1426

\*Shaded rates represent an increase to 1992 HA rates.

Table P-2. 1992 Housing Allowances with FMR Floor. With Dependents

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
AK400	Ketchikan, AK	716	716	731	785	839	935	996	996	1048	918	964	1029	1086	977	987	1063	899	939	1017	1125	1219	1219	1241
AK401	Sitka, AK	851	851	879	754	834	939	1035	1063	1145	913	1075	1170	1197	1045	1080	1216	892	1020	1151	1290	1361	1408	1434
AK402	Juneau, AK	742	742	742	822	912	1071	1111	1118	1187	954	1091	1187	1209	1074	1106	1237	949	1043	1168	1262	1342	1366	1411
AK403	Kodiak Island, AK	878	892	937	1042	1144	1247	1291	1306	1367	1050	1213	1293	1313	1199	1218	1329	1080	1185	1285	1370	1440	1440	1466
AK404	Anchorage, AK	595	594	636	728	855	941	1021	1076	1148	859	988	1089	1110	974	996	1106	811	927	1091	1211	1284	1302	1325
AK405	Fairbanks, AK	558	556	598	699	797	882	943	966	1052	789	957	1032	1032	902	915	1004	743	835	982	1092	1148	1182	1203
AL001	Anniston/Fort McClellan, AL	302	302	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
AL002	Fort Rucker, AL	302	302	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
AL003	Huntsville, AL	305	305	317	344	405	436	484	529	617	495	548	611	630	550	554	625	438	490	587	691	759	854	870
AL004	Mobile, AL	327	327	327	368	406	444	488	539	587	475	551	616	652	516	556	629	421	477	569	649	791	821	948
AL005	Montgomery, AL	343	343	360	385	441	493	520	538	598	493	519	586	635	512	528	595	455	480	592	666	752	806	848
AL006	Auburn, AL	310	310	317	341	392	479	503	539	578	463	488	557	607	488	521	588	415	459	541	649	736	764	848
AL007	Birmingham, AL	322	322	329	348	443	484	528	567	638	535	579	647	665	577	588	662	479	524	633	710	836	869	889
AL008	Tuscaloosa, AL	302	302	317	353	395	450	520	555	606	507	541	617	652	532	564	642	438	488	600	690	806	841	888
AR009	Blytheville AFB, AR	303	303	317	341	392	436	494	541	602	459	516	567	617	504	535	605	410	459	545	663	743	783	848
AR010	Little Rock, AR	344	344	357	416	470	508	548	599	642	492	549	596	644	528	560	633	425	477	598	670	790	796	848
AR011	Pine Bluff, AR	302	302	317	358	423	463	533	580	617	494	554	606	653	540	559	644	422	481	582	715	788	790	848
AR012	Fort Chaltee/Fort Smith, AR	302	302	317	341	392	436	473	508	565	425	484	527	574	481	521	577	410	459	537	649	736	764	848
AZ013	Phoenix, AZ	434	434	434	446	516	571	634	696	728	625	683	732	811	635	635	854	527	559	750	834	1011	952	970
AZ014	Fort Huachuca, AZ	328	328	328	349	418	456	527	566	591	469	513	563	622	481	521	592	410	459	539	649	736	764	848
AZ015	Davis-Monthan AFB, AZ	480	480	480	489	498	506	516	621	621	543	579	658	714	546	560	655	480	484	641	714	886	886	902
AZ016	Yuma, AZ	446	446	451	491	540	612	659	692	763	621	663	731	803	665	680	775	549	594	716	828	922	922	939
AZ017	Navajo County, AZ	321	321	321	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
CA018	Oakland, CA	890	690	690	722	755	830	928	953	987	923	997	1080	1164	1008	1008	1176	832	897	999	1141	1307	1400	1425
CA019	San Francisco, CA	854	854	854	860	887	873	950	1038	1110	1042	1144	1215	1295	1091	1113	1277	934	965	1142	1467	1542	1542	1570
CA020	Castle AFB, CA	403	403	403	440	522	607	659	708	818	569	651	704	767	614	628	736	489	534	643	749	816	887	903
CA021	China Lake NAVWEPCEEN, CA	493	493	493	501	509	517	578	642	708	528	581	675	694	596	596	878	493	540	617	749	845	861	894
CA022	Fresno, CA	441	441	441	448	517	584	648	710	763	596	670	714	778	648	664	741	523	586	680	817	889	889	905
CA023	Lemoore NAS, CA	387	387	387	427	499	538	629	629	727	592	664	711	783	650	656	760	518	581	691	808	892	921	937
CA024	Camp Pendleton, CA	812	812	812	841	869	739	810	878	840	774	828	858	921	784	784	928	697	745	821	994	1081	1117	1192
CA025	Ventura, CA	661	661	671	719	779	853	911	968	1051	902	933	1037	1044	936	958	1028	841	906	968	1114	1212	1247	1300
CA026	Vandenberg AFB, CA	636	636	636	636	637	709	765	814	871	662	702	788	805	697	697	811	636	636	722	873	941	967	984
CA027	Marina/Sonoma, CA	693	693	693	749	804	848	929	992	1009	941	1042	1068	1171	984	1003	1096	849	917	1060	1163	1236	1322	1346
CA028	Barstow/Fort Irwin, CA	520	520	520	529	539	549	581	701	778	551	588	691	691	605	605	680	520	561	594	749	840	859	903
CA029	George AFB, CA	520	520	520	540	560	581	628	700	788	585	624	718	739	630	633	717	520	567	645	782	897	914	977
CA030	Edwards AFB, CA	569	569	569	581	593	605	601	763	836	635	669	775	786	686	700	769	569	569	846	712	839	938	977
CA031	San Bernardino, CA	520	520	520	526	583	653	720	768	820	682	730	812	843	704	711	798	603	649	731	888	1025	1074	1113
CA032	Twentynine Palms MCB, CA	519	519	519	522	525	529	532	547	578	519	557	625	652	521	521	629	519	519	543	702	814	824	901

Table P-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
CA033	Beale AFB, CA	365	365	365	404	507	559	684	698	749	559	632	682	751	588	626	725	432	518	662	757	868	888	904
CA034	Sacramento, CA	470	470	470	508	589	652	740	783	842	657	732	785	852	680	724	837	551	601	749	841	991	1054	1073
CA035	Stockton, CA	432	432	442	495	589	656	733	733	847	635	728	779	837	675	701	802	544	610	716	864	943	982	1000
CA036	Vallejo/Travis AFB, CA	549	549	549	595	683	743	828	844	883	724	817	862	910	757	785	850	640	695	797	949	972	1045	1064
CA037	Los Angeles, CA	734	734	734	744	754	866	939	992	1021	998	1036	1132	1148	999	1009	1127	909	946	1058	1244	1370	1422	1476
CA038	San Diego, CA	603	603	603	624	646	730	795	838	868	868	866	935	978	845	891	993	741	785	898	1095	1230	1304	1368
CA039	Monterey, CA	577	572	585	633	712	778	896	939	1012	857	1010	1087	1087	899	945	1045	761	810	931	1147	1169	1266	1329
CA040	Bakersfield, CA	493	493	493	523	553	623	693	761	836	676	722	816	839	729	738	827	600	667	756	917	1011	1033	1071
CA041	Riverside, CA	520	520	525	582	635	717	780	831	846	722	762	838	873	753	753	823	635	708	778	908	977	1030	1116
CA042	Humboldt County, CA	456	456	456	489	559	649	704	735	783	601	656	722	776	661	672	761	534	584	697	814	903	906	923
CA044	Santa Clara County, CA	776	776	776	798	884	947	1041	1026	1086	1001	1105	1160	1215	1049	1110	1175	922	976	1088	1296	1369	1452	1479
CA392	San Luis Obispo, CA	573	573	573	584	598	608	701	750	795	637	710	764	832	694	700	794	573	621	702	878	956	966	984
CA393	Bridgeport, CA	477	477	477	506	535	578	636	677	722	613	670	731	788	662	680	761	546	612	719	811	904	928	944
CO045	Denver, CO	399	399	399	416	501	551	600	649	649	558	597	644	702	631	631	693	513	584	674	722	782	798	848
CO046	Colorado Springs, CO	379	379	379	393	406	453	501	531	583	493	551	551	618	550	550	621	430	482	577	649	748	764	848
CO047	Fort Collins, CO	431	431	431	460	489	511	587	629	670	535	577	612	677	601	604	658	493	544	614	700	776	782	848
CO048	La Junta/Rocky Ford, CO	305	305	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
CT049	New London, CT	589	589	589	612	636	727	793	799	846	731	782	874	934	767	822	895	654	701	808	973	1128	1128	1149
CT050	Hartford, CT	590	590	590	605	671	780	814	861	929	821	873	978	1047	865	926	1006	727	817	922	1082	1203	1218	1243
CT051	New Haven/Fairfield, CT	697	697	697	712	726	782	832	886	964	955	1040	1129	1204	1014	1083	1154	865	959	1074	1244	1366	1405	1431
DC053	Washington, DC Metro Area	722	722	722	741	760	842	916	937	1017	925	996	1049	1076	911	971	1042	839	874	992	1107	1193	1197	1247
DE054	Dover AFB, DE	424	424	424	456	508	534	613	697	773	610	648	700	761	622	640	720	531	563	660	780	861	861	877
DE055	Rehoboth Beach, DE	422	422	422	450	478	551	608	689	759	613	656	710	773	636	656	726	520	562	663	800	873	873	893
FL056	Eglin AFB, FL	343	333	352	396	448	488	537	585	611	509	545	611	672	539	576	646	463	494	603	741	818	886	902
FL057	Gainesville, FL	353	353	353	367	447	518	567	615	677	540	608	667	708	596	619	680	465	554	640	762	849	865	881
FL058	Jacksonville, FL	400	395	413	449	508	571	623	675	721	504	679	722	750	662	665	767	549	608	639	834	919	942	960
FL059	Patrick AFB, FL	398	398	400	451	493	550	611	651	726	592	617	697	738	590	641	721	496	576	696	815	921	931	940
FL060	Miami, FL	500	500	513	568	610	664	680	770	834	752	799	876	961	782	811	927	683	727	858	999	1233	1233	1235
FL061	Fort Lauderdale, FL	559	559	571	604	662	740	804	850	902	821	870	946	1014	852	882	963	758	821	917	1093	1168	1221	1243
FL062	Orlando, FL	448	441	454	477	545	604	665	705	760	648	656	748	813	641	703	793	558	643	725	843	997	997	1015
FL063	Panama City, FL	303	303	317	361	422	462	520	593	593	496	527	597	658	512	560	656	437	501	615	708	801	863	899
FL064	Pensacola, FL	325	325	338	369	424	450	511	545	560	467	519	574	624	499	521	605	430	459	569	649	764	908	944
FL065	Tallahassee, FL	358	358	362	398	458	505	559	623	655	563	601	676	743	604	626	728	499	576	569	779	902	933	953
FL066	Tampa, FL	412	412	417	467	524	579	630	695	746	631	664	754	830	619	688	786	558	573	735	868	1000	1021	1040
FL067	West Palm Beach, FL	486	486	499	553	594	681	705	775	837	738	780	849	925	772	792	898	670	740	836	986	1054	1114	1156

Table P-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
FL068	Astor, FL	350	350	357	393	469	511	541	616	683	562	600	669	714	589	623	694	472	550	639	779	867	869	885
FL069	Key West, FL	695	695	712	769	780	903	928	966	1022	941	994	1058	1105	975	1017	1095	896	931	1061	1152	1252	1282	1305
FL070	Volusia County, FL	402	402	402	419	470	540	591	632	708	565	602	665	696	590	613	682	479	550	620	763	844	844	859
FL328	Avon Park/Sebring, FL	323	323	330	361	446	482	564	608	674	538	568	648	709	534	592	688	443	512	623	766	877	888	905
FL397	Polk County, FL	328	328	328	372	409	482	536	593	669	518	548	622	678	509	571	658	424	490	590	733	846	867	883
GA071	Atlanta, GA	468	468	468	490	542	597	654	686	710	640	646	734	773	653	653	731	563	634	696	806	921	897	913
GA072	Albany, GA	302	302	317	341	392	436	472	508	551	422	484	527	574	481	521	577	410	459	537	649	736	764	848
GA073	Fort Gordon, GA	343	337	351	388	448	490	504	580	612	492	541	603	647	555	555	603	491	504	585	658	786	850	866
GA074	Kings Bay/Brunswick, GA	353	353	364	406	475	542	578	641	664	542	624	675	732	636	653	694	532	574	661	775	902	962	918
GA075	Fort Benning, GA	330	330	347	374	422	459	497	565	621	506	539	593	642	521	541	609	480	484	555	661	775	786	848
GA076	Robins AFB, GA	311	311	327	366	410	465	495	517	600	474	497	559	609	493	521	587	410	459	537	649	736	764	848
GA077	Savannah, GA	375	375	400	411	484	525	574	621	653	516	550	652	690	633	633	674	547	570	610	747	837	843	890
GA078	Athens, GA	334	334	342	375	416	495	572	609	633	560	590	659	715	586	586	693	442	553	635	757	841	871	887
GA079	Dahlonega, GA	332	332	332	374	432	490	534	586	624	506	531	603	651	545	545	628	417	496	567	676	751	764	848
GA080	Fort Stewart, GA	338	338	357	398	439	487	524	586	622	485	513	573	634	551	578	615	511	517	581	702	786	791	848
GA081	Moody AFB, GA	302	302	317	341	392	467	503	546	600	453	505	556	601	500	521	579	410	459	537	649	736	764	848
HI408	Honolulu County, HI	746	776	789	840	906	999	1058	1152	1172	982	1068	1166	1166	1076	1110	1237	995	1055	1124	1309	1352	1360	1402
HI409	Fort Stewart, HI	590	590	590	621	689	716	799	870	930	793	845	951	951	850	866	989	760	824	908	1062	1116	1116	1163
IA082	Des Moines, IA	384	384	384	391	470	507	560	626	655	531	585	647	696	582	595	672	468	530	643	717	807	807	849
IA083	Ames, IA	343	343	343	369	394	436	482	554	592	460	511	570	612	501	521	590	410	459	537	649	736	764	848
ID084	Boise, ID	436	436	436	454	472	490	555	589	627	490	545	629	682	555	572	652	438	494	594	720	809	834	849
ID085	Idaho Falls, ID	385	385	385	388	392	436	478	538	583	440	502	563	621	496	521	592	410	459	547	652	745	764	843
ID086	Mountain Home AFB, ID	333	333	333	341	392	436	472	517	563	419	484	527	576	481	521	577	410	459	537	649	736	764	848
ID087	Pocatello, ID	349	349	349	370	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
ID333	Moscow, ID/Pullman, WA	359	359	359	376	392	436	493	540	605	445	498	564	616	510	521	595	410	459	537	657	759	777	846
IL088	Chanute AFB, IL	351	351	351	372	392	436	472	508	551	457	496	555	615	506	521	600	410	459	539	649	746	766	848
IL089	Rock Island, IL	402	402	402	417	433	448	474	542	592	440	489	540	601	492	521	582	410	459	537	649	736	764	848
IL090	Peoria, IL	430	430	430	433	436	439	485	551	603	482	517	582	642	527	535	618	430	467	565	658	763	788	848
IL092	Great Lakes NAVTRACEN, IL	572	572	572	599	607	624	691	730	820	758	805	882	883	795	812	885	688	770	838	999	1238	1238	1261
IL093	Scott AFB, IL	389	389	389	403	481	519	574	647	627	588	625	694	757	642	642	771	517	554	652	790	890	953	970
IL325	Chicago, IL	557	557	557	583	629	700	731	755	831	741	777	841	888	795	795	887	651	730	823	957	1120	1135	1170
IL335	Springfield/Decatur, IL	371	371	371	392	413	461	522	573	617	515	540	614	694	584	584	666	436	485	605	706	820	840	855
IL363	Winnebago, IL	364	364	364	378	392	480	521	579	660	517	548	629	640	565	566	645	436	513	592	727	824	882	893
IL366	Joliet Army Depot, IL	526	526	526	533	540	547	547	657	719	582	599	673	693	615	615	702	526	559	637	770	874	911	928
IN094	Indianapolis/Ft Harrison, IN	387	387	387	393	452	506	568	586	659	545	600	645	716	599	611	695	498	539	614	726	839	853	869

\*Shaded rates represent an increase to 1992 HA rates.

Table P-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
IN095	Grissom AFB, IN	302	302	317	341	392	436	485	508	568	419	484	527	574	481	521	577	410	459	537	649	736	764	848
IN096	Lafayette, IN	354	354	387	449	491	546	600	656	681	538	583	638	644	539	539	625	423	459	549	649	740	764	848
IN097	Fort Wayne, IN	350	350	350	377	465	492	540	593	639	533	592	638	705	588	593	678	482	531	622	736	822	834	849
IN099	South Bend, IN	324	324	324	341	392	436	472	519	589	455	506	565	597	518	521	586	410	459	537	659	747	791	848
IN337	Evansville, IN	322	322	322	341	392	436	486	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
IN338	Terre Haute, IN	302	302	317	341	392	436	472	508	551	456	493	557	592	501	521	581	410	459	537	649	737	764	848
IN367	Gary, IN	408	408	408	417	426	510	544	601	674	529	576	637	673	594	594	669	464	532	613	730	824	884	904
IN399	Bloomington, IN	361	361	361	389	481	491	558	598	635	513	549	619	639	555	569	638	456	505	566	697	782	792	848
KS100	Fort Riley, KS	302	302	317	341	392	436	493	526	573	484	529	579	645	495	521	587	431	459	537	649	736	764	848
KS101	Wichita/McConnell AFB, KS	375	375	375	390	436	483	563	563	606	574	621	700	762	613	622	716	493	568	700	817	888	917	934
KS102	Fort Leavenworth, KS	343	343	343	362	426	468	537	576	619	505	562	624	695	547	564	667	455	501	595	675	757	778	848
KS104	Lawrence, KS	391	391	391	403	470	539	586	630	658	567	620	687	751	603	616	712	521	561	653	740	831	849	870
KS105	Topeka, KS	338	338	338	370	416	453	502	581	590	511	555	622	685	537	547	640	462	501	591	671	754	764	848
KY106	Fort Campbell, KY	346	346	346	369	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
KY107	Lexington, KY	354	354	354	390	426	480	525	589	628	520	546	608	659	560	573	627	448	499	589	715	796	809	848
KY109	Louisville, KY	302	302	317	341	392	436	472	537	568	510	540	614	664	545	577	631	428	506	587	728	839	846	869
KY110	Fort Knox, KY	302	302	317	341	392	436	472	508	555	419	484	527	574	481	521	577	410	459	537	649	736	764	848
LA113	England AFB, LA	302	302	317	341	392	436	472	526	576	441	484	549	624	506	521	584	423	459	537	654	750	768	848
LA114	Baton Rouge, LA	379	379	379	393	441	505	546	609	654	504	555	619	652	540	558	645	451	508	584	697	800	818	848
LA115	Fort Polk, LA	302	302	317	341	392	436	490	522	595	419	484	527	583	481	521	577	410	459	537	649	736	764	848
LA116	New Orleans, LA	417	417	417	436	455	504	558	603	608	535	590	672	672	555	550	662	464	527	593	698	817	872	887
LA117	Shreveport/Barksdale AFB, LA	336	336	336	370	426	460	500	525	574	486	536	606	672	542	542	658	444	511	599	685	782	819	848
LA118	Lafayette, LA	349	349	349	361	411	467	565	591	645	481	538	608	669	546	546	650	452	501	588	725	823	860	881
LA326	St Mary and Terrebonne, LA	309	309	317	342	409	448	509	569	603	469	511	569	604	493	521	598	410	460	541	649	748	764	848
LA370	Lake Charles, LA	333	333	333	392	434	464	539	587	649	496	544	616	691	554	554	658	473	518	616	737	823	954	862
LA371	Monroe, LA	302	302	317	350	398	445	511	550	594	474	533	597	669	534	534	635	422	490	584	698	792	818	848
MA120	Boston, MA	794	794	794	813	832	851	870	913	982	969	1019	1145	1210	1004	1083	1194	863	915	1092	1353	1490	1490	1518
MA121	Cape Cod, MA	707	707	707	727	747	767	786	802	850	707	715	818	858	718	755	838	707	707	760	899	999	1003	1031
MA122	Worcester, MA	794	794	794	806	819	832	845	851	916	807	846	960	1017	844	896	998	794	795	907	1063	1211	1219	1263
MA123	Fort Devens/Ayer, MA	794	794	794	804	815	826	836	836	914	832	875	977	1033	867	924	1029	794	808	912	1081	1266	1266	1289
MA124	Brockton/S. Weymouth, MA	794	794	794	816	838	861	895	992	1014	940	983	1101	1154	980	1034	1139	853	932	1076	1200	1347	1351	1382
MA125	Essex Co. MA	794	794	794	803	812	821	831	870	935	831	863	971	1019	860	912	1001	794	816	921	1088	1206	1206	1237
MA126	Hampden County, MA	553	553	553	585	617	649	738	787	838	664	707	816	881	704	749	835	560	649	740	929	1038	1050	1071
MA377	Hanscomb AFB, MA	740	740	740	764	788	823	943	989	1038	889	927	1043	1091	925	996	1081	775	868	955	1166	1307	1307	1330
MD127	Aberdeen Proving Grounds, MD	465	465	465	495	525	571	647	650	782	646	698	753	816	665	685	772	570	596	699	809	890	915	932

Table P-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
MD128	Annapolis, MD	567	567	586	652	699	742	835	920	979	819	862	924	984	841	868	940	738	774	867	1046	1090	1107	1127
MD129	Baltimore, MD	492	492	510	569	642	699	747	825	878	805	865	891	968	828	853	923	713	758	856	984	1064	1095	1114
MD130	Fort Detrick, MD	722	722	722	733	745	757	768	800	857	722	747	807	857	722	748	834	722	722	751	869	948	980	998
MD131	Fort Ritchie, MD	366	366	366	393	443	502	610	656	739	531	581	630	689	553	578	648	456	488	607	697	784	785	848
MD133	Fort G. G. Meade, MD	577	577	583	674	730	766	831	880	939	830	874	934	984	843	878	940	760	800	903	1004	1059	1092	1112
MD134	Indian Head NAVORDSTA, MD	722	722	722	746	770	832	864	917	974	770	812	860	911	794	813	855	722	754	813	925	979	1008	1026
MD135	Paluxent River, MD	516	516	528	574	644	715	753	793	874	781	819	857	925	817	828	900	703	743	829	940	1031	1048	1067
ME136	Brunswick, ME	490	490	490	521	569	636	709	710	792	693	761	803	870	730	777	838	620	707	740	902	989	1003	1021
ME137	Loring AFB, ME	373	373	373	400	427	490	532	592	645	457	504	561	613	508	521	606	410	459	537	664	740	764	848
ME139	Portland, ME	608	608	608	631	654	677	713	776	820	712	761	837	903	749	784	870	634	714	782	963	1060	1068	1093
ME140	Bar Harbor, ME	383	383	383	393	467	511	576	617	666	569	639	685	739	606	641	718	507	572	659	774	857	861	877
ME390	Bangor, ME	409	409	409	441	491	529	557	636	718	703	764	852	921	747	784	903	621	694	804	1042	1114	1131	1169
MI142	Detroit, MI	408	408	414	419	491	529	557	636	718	703	764	852	921	747	784	903	621	694	804	1042	1114	1131	1169
MI143	KI Sawyer AFB, MI	339	339	339	341	394	467	561	588	650	492	546	611	668	545	557	642	417	471	581	694	803	820	848
MI145	Sault Ste Marie, MI	302	302	317	341	392	436	472	524	595	420	484	529	584	481	521	577	410	459	537	649	736	764	848
MI146	Traverse City, MI	385	385	391	460	503	559	614	673	726	611	673	733	788	672	675	760	548	612	704	839	954	954	988
MI148	Mustkegon, MI	329	329	329	358	411	458	521	582	649	514	568	634	670	568	569	652	445	513	599	733	828	858	873
MI149	Port Huron, MI	408	408	408	431	455	508	567	620	693	572	623	695	764	616	637	726	497	559	660	802	898	925	966
MI150	Wurtsmith AFB, MI	302	302	317	345	392	484	486	555	611	431	484	533	589	487	521	577	410	459	537	649	736	764	848
MI152	Battle Creek/Kalamazoo, MI	323	323	327	367	428	484	536	589	640	538	603	664	747	588	598	692	463	532	636	748	862	887	939
MI153	Lansing, MI	381	381	381	383	460	504	537	606	650	511	557	624	687	550	560	632	444	502	586	702	791	806	848
MI154	Grand Rapids, MI	384	384	384	398	481	539	589	630	684	574	633	697	756	629	630	723	508	577	670	798	902	932	956
MI155	Ann Arbor, MI	496	496	509	556	617	662	714	764	828	699	747	823	882	737	760	834	633	699	796	899	1019	1029	1048
MI156	Saginaw, MI	338	338	338	351	423	457	528	591	628	521	565	633	692	566	568	648	447	508	595	722	809	821	849
MI341	Flint, MI	353	353	353	383	444	499	554	615	669	555	604	678	739	603	612	697	481	543	639	773	865	883	913
MN158	Duluth, MN	343	343	343	368	392	436	473	542	603	474	533	588	653	525	525	621	410	465	562	692	781	798	846
MN159	Minneapolis/St Paul, MN	511	511	511	539	568	636	693	748	775	742	742	809	887	746	762	845	629	702	767	963	1037	1037	1044
MO160	Kansas City, MO	371	371	375	409	454	511	609	621	644	555	618	678	751	611	634	713	507	557	653	752	863	863	889
MO161	St. Louis, MO	404	404	411	420	483	540	582	625	661	590	637	694	752	642	642	745	526	565	721	773	858	960	977
MO162	Whiteman AFB, MO	302	302	317	341	392	436	481	545	580	419	484	535	583	481	521	577	410	459	537	649	736	764	848
MO163	Fort Leonard Wood, MO	302	302	317	341	392	436	472	528	570	419	484	527	574	481	521	577	410	459	537	649	736	764	848
MO164	Springfield, MO	302	302	317	341	395	451	506	557	608	458	511	577	625	514	534	601	410	460	544	655	738	764	848
MO165	Columbia/Jefferson City, MO	303	303	317	341	393	454	491	556	590	446	505	567	620	510	521	597	410	459	537	649	736	764	848
MS168	Gulfport, MS	302	302	317	341	392	436	478	529	572	443	507	576	606	481	521	577	410	459	537	649	746	764	848
MS169	Columbus AFB, MS	302	302	317	341	392	453	485	526	595	478	502	559	603	484	521	581	410	459	537	649	747	764	848

\*Shaded rates represent an increase to 1992 HA rates.

Table P-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
MS170	Jackson, MS	372	372	372	401	430	478	517	572	628	495	521	576	635	514	532	603	418	466	550	649	749	764	848
MS171	Meridian, MS	302	302	317	341	392	436	488	538	599	453	484	539	598	481	521	577	410	459	537	649	736	764	848
MS172	Hattiesburg, MS	302	302	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	848
MT175	Malstrom AFB/Great Fls, MT	362	362	377	392	436	495	536	582	641	419	484	527	574	481	521	577	410	459	537	649	736	764	848
NC177	Morehead/Cherry Pt, MCAS, NC	319	319	333	375	425	469	500	565	625	521	521	561	642	542	542	592	458	492	569	696	748	771	848
NC178	Camp Lejeune, NC	320	320	331	368	417	465	502	524	551	542	542	607	669	544	544	585	492	547	579	670	768	788	848
NC179	Charlotte, NC	341	341	353	394	485	502	506	575	651	536	556	608	673	571	571	639	481	541	600	704	791	818	848
NC180	Durham/Chapel Hill, NC	371	371	378	419	474	524	564	604	663	600	618	688	756	634	646	709	546	600	669	772	802	894	910
NC181	Elizabeth City, NC	329	329	338	382	437	478	531	579	635	547	581	623	673	603	609	652	464	517	603	718	797	806	848
NC182	Fort Bragg/Pope AFB, NC	354	343	356	384	440	480	505	564	600	543	532	577	663	541	541	589	477	511	557	649	736	764	848
NC183	Seymour Johnson AFB, NC	318	318	334	372	427	491	523	539	581	536	536	591	657	561	561	603	479	532	571	653	766	766	848
NC184	Greensboro, NC	350	350	362	387	423	467	559	594	648	580	606	672	740	619	619	693	519	573	669	768	880	909	931
NC185	Raleigh, NC	442	442	455	497	593	597	680	690	742	649	656	715	787	689	689	746	602	650	703	794	911	911	927
NC186	Wilmington, NC	357	357	363	389	454	493	534	589	620	602	602	661	733	631	638	687	543	592	671	759	857	884	900
ND188	Bismarck, ND	354	354	354	373	392	436	473	508	551	423	484	534	585	481	521	577	410	459	537	649	736	764	848
ND189	Fargo, ND	353	353	353	363	383	458	470	560	588	644	511	561	621	670	541	566	442	497	585	709	793	798	848
ND190	Grand Forks, ND	327	327	327	341	392	436	475	528	565	483	537	601	654	521	542	633	411	459	537	711	790	811	848
ND191	Minot AFB, ND	302	302	317	367	392	436	472	508	551	419	484	532	588	481	521	577	410	459	537	649	736	764	848
NE192	Omaha/Offutt AFB, NE	340	340	359	413	487	551	612	645	654	541	600	655	708	576	584	693	459	540	653	728	798	806	848
NE193	Lincoln, NE	350	350	350	353	440	494	550	576	649	482	529	584	645	509	537	619	413	472	577	662	736	764	848
NH194	Portsmouth, NH/Killery, ME	609	609	609	628	647	666	720	780	833	686	732	817	874	715	752	835	609	661	764	960	1051	1051	1072
NH195	Manchester/Concord, NH	643	643	643	652	661	670	719	806	853	733	767	873	927	767	812	907	643	721	807	1011	1114	1114	1143
NJ196	Atlantic City, NJ	522	522	532	566	584	699	756	799	861	725	765	826	880	777	758	810	653	670	781	916	984	961	977
NJ198	Cape May, NJ	521	521	521	550	578	627	740	748	822	655	679	734	796	669	680	751	563	594	702	807	884	884	923
NJ200	Fort Monmouth/Earls NWS,	634	634	634	631	691	771	896	901	967	913	985	1041	1126	963	985	1079	836	875	1008	1150	1264	1268	1291
NJ201	Perth Amboy, NJ	717	717	717	721	724	728	869	891	943	909	977	1036	1115	956	990	1082	832	893	1017	1153	1235	1295	1319
NJ202	Northern New Jersey	636	636	636	662	688	713	777	851	915	839	902	964	1046	891	908	996	753	807	897	1079	1201	1202	1224
NJ203	Trenton, NJ	632	632	632	651	670	752	826	864	923	810	858	926	1005	855	878	963	731	798	904	1030	1141	1147	1163
NJ204	Fl Dix/McGuire/Lakehurst, NJ	517	517	517	522	626	665	687	818	841	712	763	828	902	757	759	845	630	675	783	900	1007	1007	1020
NM205	Holloman AFB/Alamogordo,	318	318	318	341	392	436	472	536	560	419	484	543	607	481	521	577	410	459	537	649	736	764	848
NM206	Albuquerque/Fernand AFB, NM	434	434	434	466	498	545	603	634	726	550	578	635	683	578	591	652	460	490	582	697	803	812	848
NM207	Cannon AFB/Clovis, NM	302	302	317	341	392	436	472	534	589	462	512	577	635	502	521	619	410	459	572	682	771	790	848
NM208	Gallop, NM	436	436	436	436	436	436	472	508	551	436	484	527	574	481	521	577	436	459	537	649	736	764	848
NM209	White Sands MRL/Cruces, NM	325	325	325	341	392	437	509	543	588	467	520	606	681	512	544	632	448	490	581	708	797	826	861
NM210	Sanita Fe/Los Alamos, NM	530	530	530	544	559	573	620	678	734	615	648	704	756	643	658	726	530	576	686	793	875	878	834

Table P-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
NY211	Fallon NAS, NV	470	470	470	499	529	555	620	678	730	608	662	726	792	660	678	770	547	610	700	822	931	936	953
NY212	Nellis AFB/Las Vegas, NV	555	555	555	563	572	642	699	720	777	654	715	775	832	712	712	791	582	630	776	870	1041	1041	1060
NY213	Carson City, NV	652	652	652	656	660	665	709	752	812	670	732	797	862	726	745	834	652	680	783	879	990	1003	1021
NY215	Ballston Spa/Albany, NY	426	426	439	484	538	624	664	758	785	558	651	732	803	674	693	797	523	613	717	799	926	955	972
NY216	Buffalo, NY	347	347	347	390	416	442	477	582	643	542	583	667	719	587	597	691	466	538	643	765	862	881	897
NY217	West Point, NY	569	569	576	613	688	758	835	904	956	858	928	1006	1089	928	959	1036	792	860	995	1091	1246	1252	1274
NY218	Long Island, NY	770	770	770	796	802	818	835	835	942	847	911	985	1059	892	944	1016	781	846	966	1076	1190	1211	1233
NY219	New York City, NY	553	553	553	631	717	759	835	835	942	847	911	985	1059	892	944	1016	781	846	966	1076	1190	1211	1233
NY220	Plattsburgh, NY	364	364	370	420	494	482	549	643	696	541	599	650	722	602	610	696	483	530	646	755	840	858	879
NY221	Rochester, NY	472	472	472	497	522	569	612	679	725	550	620	721	763	650	650	729	533	577	694	799	893	903	919
NY222	Rome/Griffiss AFB, NY	356	356	357	418	472	523	597	628	727	454	567	665	719	593	593	706	472	519	608	716	791	819	848
NY223	Seneca Army Dep/Syracuse, NY	392	392	392	416	469	500	582	647	721	582	699	802	879	732	732	854	568	639	804	912	1024	1054	1095
NY225	Fort Drum/Watertown, NY	409	409	409	431	453	490	565	595	674	470	558	647	730	579	579	682	482	496	588	702	799	818	848
NY226	Binghamton/Elmira, NY	386	386	386	412	486	547	631	636	699	536	633	724	780	667	667	752	525	585	690	798	891	905	921
NY349	Westchester County, NY	647	647	647	683	754	839	916	984	1045	989	1054	1138	1230	1057	1094	1183	911	991	1162	1274	1424	1466	1570
NY395	Jamestown, NY	335	335	335	341	392	448	499	563	623	489	526	604	656	538	540	628	410	484	575	705	783	798	848
OH227	Akron, OH	347	347	349	398	453	505	531	597	675	558	619	663	727	603	630	694	489	556	629	779	886	911	927
OH228	Cincinnati, OH	364	364	364	426	489	516	594	617	646	505	527	580	624	546	562	604	449	493	563	651	751	764	848
OH229	Cleveland, OH	403	403	411	436	487	541	592	703	757	636	695	755	827	677	714	792	571	636	723	888	1007	1046	1065
OH230	Columbus, OH	358	358	358	372	455	511	558	619	654	537	576	635	704	579	591	663	471	512	638	745	864	864	880
OH231	Wright-Patterson AFB, OH	358	358	358	372	455	511	558	619	654	537	576	635	704	579	591	663	471	512	638	745	864	864	880
OH232	Toledo, OH	383	383	383	416	449	469	522	593	656	531	576	648	708	568	591	671	460	521	605	749	842	855	871
OH233	Youngstown, OH	319	319	319	341	392	466	492	533	631	484	507	555	616	510	521	591	410	459	537	655	755	768	848
OH382	Mansfield, OH	302	302	317	341	392	436	477	523	600	457	496	560	631	497	521	591	410	459	544	673	780	805	848
OK235	Allus AFB, OK	302	302	317	341	392	436	477	523	600	457	496	560	631	497	521	591	410	459	544	673	780	805	848
OK236	Vance AFB/End, OK	351	351	351	372	392	436	477	523	600	457	496	560	631	497	521	591	410	459	544	673	780	805	848
OK237	Fort Sill/Lawton, OK	302	302	317	341	392	436	477	523	600	457	496	560	631	497	521	591	410	459	544	673	780	805	848
OK239	Oklahoma City, OK	319	319	319	366	414	450	516	529	551	444	488	558	601	488	521	583	410	459	541	649	736	764	848
OK240	Tulsa, OK	389	389	389	416	443	476	513	549	607	476	501	578	625	516	528	604	410	466	544	658	744	764	848
OR241	Astoria, OR	405	405	405	428	451	475	514	577	634	514	593	637	673	567	597	666	456	512	622	735	813	813	849
OR242	Coos Bay, OR	443	443	443	455	468	481	550	585	636	477	531	596	657	517	542	641	443	459	577	678	775	777	849
OR243	Portland, OR	397	397	397	428	497	532	633	650	684	564	629	675	714	609	638	691	503	568	646	759	878	878	914
OR244	Salem, OR	434	434	434	441	448	502	565	612	650	532	581	623	675	573	603	662	464	529	608	709	797	805	849
OR245	Corvallis, OR	421	421	421	440	459	521	579	623	666	494	544	586	639	527	560	627	421	491	556	674	756	764	849
OR246	Eugene, OR	472	472	472	488	503	519	543	584	628	509	561	617	671	544	578	657	472	506	597	709	793	819	849



Table P-2 Continued

HA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
PA247	Carlisle Barracks, PA	440	440	440	456	471	527	576	639	741	557	605	653	723	574	606	650	475	520	625	755	800	810	848
PA248	Philadelphia, PA/Camden, NJ	504	504	504	523	581	654	749	829	892	797	828	900	978	820	829	912	682	720	893	1009	1082	1119	1135
PA249	Nas Willow Grove, PA	550	550	559	619	696	759	822	914	965	879	919	987	1066	904	917	1058	773	828	970	1089	1229	1229	1251
PA250	Pittsburgh, PA	336	336	336	361	439	464	530	530	635	528	575	615	674	584	584	620	466	523	603	696	809	814	848
PA251	Reading, PA	418	418	418	434	515	576	615	699	787	665	702	763	827	688	698	784	565	619	721	854	929	929	946
PA252	State College, PA	493	493	493	498	503	508	585	639	704	554	605	664	712	609	609	696	493	555	629	758	834	841	857
PA253	Erie, PA	428	428	428	436	444	452	512	550	625	595	635	664	655	604	559	636	428	496	580	705	806	824	848
PA254	Wilkes-Barre/Scranton, PA	320	320	320	341	392	436	472	560	645	508	574	628	705	560	570	667	419	486	599	727	809	810	849
PA255	Allentown/Bethlehem, PA	435	435	449	481	541	624	709	749	819	701	750	818	897	742	762	854	615	679	791	932	1029	1032	1051
PA380	Letterkenny Army Depot, PA	371	371	371	385	399	462	540	604	685	518	564	620	681	541	562	639	439	479	581	690	748	764	849
PA383	Johnstown, PA	345	345	345	368	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	842
RI256	Newport, RI	622	622	622	650	678	770	853	853	925	757	800	906	945	764	841	940	662	736	815	1010	1112	1112	1135
RI257	Providence, RI	561	561	561	569	576	665	729	729	817	698	764	844	895	729	788	830	601	668	760	946	1053	1072	1112
SC258	Beaufort/Paris Island, SC	371	371	378	416	465	509	571	604	640	501	548	590	644	592	592	630	507	550	581	701	791	793	849
SC259	Charleston, SC	372	361	374	401	460	506	545	617	669	530	508	648	710	654	654	660	533	568	646	792	879	879	924
SC260	Columbia/Fort Jackson, SC	363	363	371	408	459	515	521	623	639	556	610	667	707	626	626	668	520	556	638	735	880	935	952
SC261	Greenville, SC	306	306	317	347	406	456	487	585	620	516	566	622	680	555	555	555	660	447	515	618	730	841	880
SC262	Myrtle Beach AFB, SC	364	364	377	413	454	523	544	601	644	566	573	630	692	619	619	642	507	546	536	736	833	833	849
SC263	Sumter Shaw AFB, SC	316	316	330	369	421	477	532	559	591	481	513	552	608	528	528	577	430	453	537	665	736	766	849
SD264	Rapid City/Ellsworth AFB, SD	305	305	320	359	417	462	481	582	627	502	534	568	651	533	533	537	625	432	496	584	698	798	801
SD265	Sioux Falls, SD	331	331	333	367	444	517	536	599	639	535	585	644	699	586	597	672	467	529	615	744	825	825	849
TN266	Chattanooga, TN	340	340	340	377	421	490	516	579	621	508	550	618	655	556	556	645	443	506	585	678	772	796	849
TN267	Knoxville, TN	302	302	317	341	392	454	472	542	600	469	528	589	636	525	536	616	410	475	575	669	767	765	849
TN268	Memphis, TN	331	331	331	365	426	460	519	566	599	506	575	597	655	547	585	637	442	495	598	660	807	845	849
TN269	Nashville, TN	384	384	394	392	465	519	570	611	621	492	528	606	634	545	545	639	473	516	593	865	761	817	849
TN353	Johnson City/Kingsport, TN	302	302	317	341	392	436	485	533	585	435	486	548	599	496	521	577	410	459	537	649	736	764	849
TN354	Manchester, Tennessee, TN	302	302	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	849
TX270	Abilene/Dyess AFB, TX	339	339	339	366	413	466	526	580	620	500	551	616	683	543	557	660	421	459	537	654	745	745	849
TX271	Amarillo, TX	304	304	317	341	392	436	483	544	587	450	498	563	618	433	521	593	410	459	537	654	745	745	849
TX272	Austin/Bergstrom AFB, TX	407	407	407	412	488	544	589	642	659	534	573	652	718	591	591	730	432	538	632	769	864	864	849
TX273	Beaumont, TX	366	366	366	366	431	495	552	581	649	474	512	591	636	548	548	629	436	432	535	637	744	744	849
TX274	College Station, TX	448	448	448	452	457	543	576	629	683	518	556	629	694	570	570	667	484	536	618	747	829	829	849
TX275	Corpus Christi, TX	375	375	375	394	455	530	569	636	680	539	593	673	726	553	610	700	454	509	630	738	879	879	924
TX276	Kingsville, TX	329	329	329	367	447	511	558	606	671	497	553	625	672	517	562	652	418	459	580	750	822	822	849
TX277	Dallas, TX	422	422	443	479	545	599	654	696	739	606	651	716	791	675	676	746	565	630	743	808	943	943	952

\*Shaded rates represent an increase to 1992 HA rates.

Table P-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
TX273	Laughlin AFB, Del Rio TX	302	302	317	341	411	470	514	577	626	442	489	546	597	481	521	577	410	459	537	649	742	764	848
TX279	El Paso TX	318	318	334	361	400	454	506	508	551	451	484	571	670	499	533	617	457	476	551	655	774	851	867
TX280	Galveston TX	381	381	391	413	480	532	581	660	722	607	667	734	774	679	679	763	537	615	704	835	940	978	996
TX281	Brownsville TX	310	310	320	357	418	472	546	615	661	505	555	627	676	535	572	656	426	484	586	731	824	844	853
TX282	Houston TX	383	383	385	446	514	589	617	683	738	578	635	724	778	616	656	724	503	563	679	737	914	949	946
TX283	Lubbock Reese AFB, TX	305	305	317	341	403	459	503	554	606	509	554	616	669	543	563	651	455	526	591	711	810	820	856
TX284	Goodfellow AFB, TX	343	343	343	345	402	459	488	553	606	487	542	608	670	524	552	656	410	466	605	687	792	813	816
TX285	San Antonio TX	401	401	401	426	450	504	537	573	611	501	554	663	728	569	569	678	435	494	611	730	734	809	844
TX286	Fort Hood TX	302	302	317	341	408	461	495	555	599	453	484	552	600	501	521	603	442	477	537	671	736	764	774
TX287	Texas A&M TX	326	326	339	377	448	500	535	580	626	526	576	644	696	579	579	667	451	531	623	724	813	817	843
TX288	Wendell F. S. Sheppard AFB	317	317	330	366	422	453	517	555	575	508	557	610	659	536	562	625	444	494	596	672	751	837	837
TX289	Beaville TX	302	302	317	341	392	441	495	568	610	456	505	584	628	505	521	610	410	459	554	692	773	773	773
TX290	Fort Worth TX	400	400	400	431	500	567	621	633	636	548	598	665	727	607	607	702	521	554	658	766	873	873	873
UT291	Cody Hill AFB UT	321	321	321	347	405	436	500	556	570	443	491	549	592	482	521	577	410	459	537	649	746	764	764
UT292	San Jose City UT	321	321	321	351	423	448	506	545	591	472	523	579	628	515	541	594	410	461	570	649	736	764	764
UT357	Pueblo UT	338	338	338	341	352	436	472	508	551	421	484	507	588	481	521	577	410	459	537	649	736	764	764
VA295	Charlottesville VA	401	401	401	421	476	538	644	679	735	604	681	707	763	619	655	724	530	575	665	764	842	862	862
VA296	Quantico Woodbridge VA	718	718	718	718	719	720	787	794	846	788	858	916	952	708	834	910	718	739	843	955	1047	1074	1074
VA297	Hampton Newport News VA	422	422	422	441	501	577	633	666	691	621	664	723	740	674	685	741	538	586	693	796	873	860	860
VA298	Norfolk Portsmouth VA	422	422	428	478	537	598	652	668	726	673	758	730	793	730	731	778	585	623	728	832	949	978	978
VA300	Petersburg Fort Lee VA	356	356	356	405	457	530	576	603	673	552	611	641	694	612	620	667	474	515	595	734	823	837	848
VA301	Richmond VA	372	372	385	435	496	555	624	641	723	583	642	673	729	641	651	683	503	563	617	776	845	871	877
VA302	Warrenton Viet Hill Farm VA	607	607	607	651	728	801	802	899	959	833	865	921	983	845	877	133	763	797	865	1000	1106	1106	1106
VA303	Lexington VA	313	313	317	341	398	454	516	575	625	499	552	607	644	540	553	624	426	481	575	670	767	768	848
VA304	Wallops Island VA	338	338	342	384	467	513	571	625	677	593	648	687	748	658	663	739	506	558	660	795	869	880	913
VA362	Roanoke VA	342	342	342	369	395	436	495	541	596	466	519	579	627	512	526	508	410	461	551	677	753	768	843
VA368	Camp A P Hill VA	437	437	445	489	577	607	679	726	786	629	678	725	780	670	684	732	575	598	670	757	879	881	877
VT305	Burlington VT	526	526	526	527	529	649	679	733	793	653	708	759	834	713	724	800	589	651	747	868	972	987	1076
WA306	Bremerton WA	440	440	440	462	533	614	668	694	796	613	683	742	782	674	714	747	565	635	727	836	857	886	886
WA307	Everett WA	524	524	524	554	624	697	742	757	828	682	773	816	853	747	775	835	632	709	783	870	967	967	967
WA308	Port Angeles WA	422	422	422	436	450	463	522	572	638	467	535	567	633	530	545	612	411	489	553	665	746	764	764
WA309	Seattle WA	524	524	524	562	631	669	707	723	792	700	778	836	897	770	799	858	630	719	855	902	1000	1000	1000
WA310	Spokane WA	368	368	368	397	425	451	527	577	625	451	500	562	512	508	521	587	410	462	537	649	772	772	772
WA311	Tacoma WA	436	436	436	442	475	545	574	645	681	580	665	725	740	614	644	741	517	564	671	791	834	834	834
WA312	Whidbey Island WA	433	433	433	474	551	628	669	718	811	614	686	751	769	677	689	756	598	637	714	773	874	874	874

Table P-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
WA313	Yakima, WA	391	391	391	410	430	492	555	592	655	520	587	650	689	571	530	665	454	519	616	718	737	812	843
WA315	Aberdeen, WA	422	422	422	444	467	490	536	581	635	471	544	594	638	527	555	616	422	474	560	663	741	764	849
WI316	Madison, WI	397	397	397	431	512	551	598	649	729	603	637	706	740	652	655	733	528	537	633	707	816	925	945
WI317	Milwaukee, WI	383	383	389	426	485	544	681	714	731	580	620	683	687	618	618	686	506	581	662	761	835	922	939
WI318	Sparta, WI	310	310	317	345	414	449	502	547	609	449	490	552	559	491	521	577	410	459	537	649	736	764	849
WI319	Fort McCoy, WI	313	313	317	348	422	464	503	565	620	496	538	590	642	533	546	624	420	480	561	644	763	766	849
WI358	Green Bay, WI	309	309	317	341	413	436	509	558	612	480	534	588	644	528	538	621	410	467	555	630	775	776	849
WI359	Stevenspoint, WI	324	324	328	372	444	476	563	607	664	539	595	662	716	591	605	689	464	525	628	752	817	860	889
WV320	Morgantown, WV	343	343	343	368	392	436	472	508	571	423	484	527	574	481	521	577	410	459	537	649	736	764	849
WV321	Sugar Grove, WV	302	302	317	341	392	436	472	508	551	427	484	527	574	481	521	577	410	459	537	649	736	764	849
WV322	Huntington, WV	336	336	336	341	442	471	525	574	633	500	533	594	648	533	553	615	420	484	558	685	758	773	849
WV323	Charleston, WV	430	430	430	439	448	458	500	546	612	508	554	616	665	549	571	629	435	496	585	696	789	796	849
WV360	Beckley, WV	302	302	317	341	392	436	472	513	577	456	506	566	610	501	521	575	410	459	537	649	736	764	849
WV324	Cheyenne, WV	410	410	410	422	434	445	478	540	605	453	489	529	580	516	521	577	425	459	537	649	736	764	849
ZZ530	County Cost Group	302	302	317	341	392	436	472	508	551	419	484	527	574	481	521	577	410	459	537	649	736	764	849
ZZ540	County Cost Group	302	302	317	341	392	436	472	508	551	432	484	527	574	481	521	577	410	459	537	649	736	764	849
ZZ550	County Cost Group	302	302	317	341	392	436	472	508	551	440	484	527	574	481	521	577	410	459	537	649	736	764	849
ZZ560	County Cost Group	302	302	317	341	392	436	472	508	551	424	484	527	574	481	521	577	410	459	537	649	736	764	849
ZZ570	County Cost Group	302	302	317	341	392	436	472	508	551	428	484	527	574	481	521	577	410	459	537	649	736	764	849
ZZ580	County Cost Group	302	302	317	341	392	436	472	508	551	432	484	527	574	481	521	577	410	459	537	649	736	764	849
ZZ590	County Cost Group	302	302	317	341	392	436	472	508	551	440	484	527	574	481	521	577	410	459	537	649	736	764	849
ZZ600	County Cost Group	303	303	317	341	392	436	472	508	551	445	484	530	574	481	521	577	410	459	537	649	736	764	849
ZZ610	County Cost Group	306	306	317	341	392	436	472	508	551	453	484	540	581	491	521	577	410	459	537	649	736	764	849
ZZ620	County Cost Group	317	317	317	341	392	436	478	518	551	461	490	551	592	495	521	584	410	459	537	649	736	764	849
ZZ630	County Cost Group	332	332	332	341	398	442	487	529	562	465	500	567	604	505	521	590	411	459	537	649	736	764	849
ZZ640	County Cost Group	347	347	347	376	406	455	496	539	573	474	509	577	615	515	521	601	419	459	546	651	736	774	849
ZZ650	County Cost Group	362	362	362	388	414	464	511	549	584	482	519	588	632	524	529	613	423	469	55	644	714	769	849
ZZ660	County Cost Group	377	377	377	401	426	473	520	559	595	495	534	604	644	534	540	624	431	482	56	677	719	825	849
ZZ670	County Cost Group	392	392	392	414	488	547	599	615	642	537	606	650	710	610	592	662	486	525	625	759	815	847	849
ZZ680	County Cost Group	407	407	407	426	446	494	548	584	623	512	539	630	672	558	566	633	452	501	594	710	836	835	849
ZZ690	County Cost Group	422	422	422	438	453	507	558	594	634	524	572	646	684	568	576	665	463	514	605	723	811	859	849
ZZ700	County Cost Group	437	437	437	451	465	521	572	610	650	537	587	662	701	592	532	682	472	524	621	736	843	849	849
ZZ710	County Cost Group	452	452	452	464	477	534	586	625	667	549	601	672	718	596	607	682	480	537	637	755	811	849	849
ZZ720	County Cost Group	467	467	467	475	489	547	600	640	678	562	616	688	736	606	623	711	493	551	653	775	811	849	849

Table P-2 Continued

NHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
22730	County Cost Group	482	482	482	481	500	560	614	650	694	574	630	704	747	821	833	728	505	565	670	788	902	935	985
22740	County Cost Group	457	497	497	504	512	573	633	666	711	587	645	725	764	635	654	746	517	579	686	807	916	950	1011
22750	County Cost Group	512	512	512	520	528	586	647	686	727	599	660	741	787	649	670	763	529	592	702	827	938	973	1036
22760	County Cost Group	527	527	527	533	540	603	666	701	744	616	679	756	805	669	686	780	546	606	718	846	961	996	1062
22770	County Cost Group	542	542	542	547	551	617	681	716	760	629	693	772	822	683	701	798	558	620	734	866	983	1019	1087
22780	County Cost Group	557	557	557	562	567	634	699	732	782	646	713	793	839	702	722	815	570	638	755	885	1005	1042	1113
22790	County Cost Group	572	572	572	577	583	651	714	752	799	662	727	809	862	717	743	838	587	657	772	911	1034	1064	1138
22800	County Cost Group	587	587	587	593	598	664	732	767	815	679	747	830	879	736	758	855	603	670	793	931	1056	1067	1163
22810	County Cost Group	602	602	602	608	610	682	751	787	838	696	766	851	902	755	779	878	620	689	809	957	1078	1110	1189
22820	County Cost Group	617	617	617	621	626	699	770	803	854	713	785	867	925	775	800	901	636	707	831	976	1100	1133	1223
22830	County Cost Group	632	632	632	639	645	721	789	823	876	733	805	888	942	794	826	919	652	725	852	1002	1130	1156	1248
22840	County Cost Group	647	647	647	654	661	739	808	843	898	756	830	909	965	822	847	942	669	748	874	1028	1152	1187	1274
22850	County Cost Group	662	662	662	669	677	756	832	864	915	771	848	930	988	832	868	965	685	767	895	1054	1181	1210	1308
22860	County Cost Group	677	677	677	685	693	778	850	884	937	788	868	951	1011	852	894	988	706	790	917	1080	1203	1240	1333
22870	County Cost Group	692	692	692	702	712	795	869	904	959	809	892	972	1034	876	915	1011	722	808	944	1106	1233	1263	1367
22880	County Cost Group	707	707	707	719	732	817	893	925	981	830	911	993	1057	900	941	1040	742	831	965	1132	1262	1294	1392
22890	County Cost Group	722	722	722	735	747	839	916	945	1003	851	936	1020	1086	919	967	1063	763	854	987	1164	1292	1317	1417

## ALLOWANCES

### APPENDIX Q—HOUSING ALLOWANCE RATES: WITHOUT-DEPENDENTS FLOOR

This appendix shows the housing allowances (by MHA and paygrade) for members without dependents that would result from the implementation of the \$20k (Table Q-1) and FMR (Table Q-2) floors. In the tables, HA rates that would change as a consequence of the floor are shaded. (Appendix N provides a schedule of 1992 housing allowances.)

The floors were calculated using the 1-bedroom and efficiency data listed in Appendix O. The formula for the price-based allowance, developed in Chapter 4, was used to calculate the floor for each MHA. A 20 percent absorption factor was applied.

The rules for determining the new housing allowance schedules for members without dependents are as follows: E-1s to E-4s receive the greater of the current HA and a floor determined from the rental expenses of an efficiency apartment. E-5s and above receive the greater of the current HA and a floor determined from the rental expenses of a 1-bedroom apartment.

Table Q-1. 1992 Housing Allowances with \$20K (efficiency) Floor: Without Dependents\*

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
AK400	Keetchikan, AK	503	503	538	548	592	636	692	754	795	698	756	836	963	725	787	900	663	734	856	978	1008	1009	1009
AK401	Sitka, AK	460	460	500	526	582	638	719	804	869	694	843	951	1061	776	861	1029	658	798	969	1121	1125	1166	1166
AK402	Juneau, AK	545	545	546	574	642	729	772	846	901	725	855	965	1072	797	881	1046	700	816	984	1097	1110	1147	1147
AK403	Kodiak Island, AK	591	591	690	728	798	848	897	968	1038	828	952	1050	1164	890	971	1124	796	927	1082	1191	1191	1192	1192
AK404	Anchorage, AK	401	401	469	509	596	640	710	814	871	652	775	885	984	723	794	936	598	725	918	1052	1062	1077	1077
AK405	Fairbanks, AK	458	458	458	488	556	600	655	731	799	600	751	838	915	669	729	850	547	653	827	949	949	978	978
AL001	Anniston/Fort McClellan, AL	227	227	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
AL002	Fort Rucker, AL	189	190	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
AL003	Huntsville, AL	282	282	282	282	332	332	336	400	468	377	430	497	558	408	442	528	332	383	495	600	661	707	707
AL004	Mobile, AL	228	228	234	257	283	302	339	408	446	361	432	500	578	382	443	532	310	373	479	564	654	680	689
AL005	Montgomery, AL	271	271	271	271	318	335	362	407	454	375	407	477	563	380	421	503	336	376	499	579	622	667	689
AL006	Auburn, AL	308	308	308	308	362	362	362	408	439	362	383	453	538	362	415	497	362	362	455	564	609	632	689
AL007	Birmingham, AL	280	280	280	280	329	329	366	429	484	407	454	526	590	428	469	560	353	410	533	617	692	720	722
AL008	Tuscaloosa, AL	312	312	312	312	367	367	367	420	460	385	425	502	578	394	449	543	367	381	505	600	667	696	722
AR009	Blytheville AFB, AR	195	195	234	238	274	297	343	409	456	349	404	460	547	374	426	512	302	359	459	576	614	648	689
AR010	Little Rock, AR	308	308	308	308	363	363	363	415	455	374	430	484	571	391	446	535	363	373	503	582	654	659	689
AR011	Pine Bluff, AR	220	220	234	250	295	315	370	439	468	375	434	492	579	401	445	545	311	376	490	621	652	654	689
AR012	Fort Chaffee/Fort Smith, AR	216	216	234	238	274	297	329	384	429	323	380	428	509	357	415	488	302	359	452	564	609	612	689
AZ013	Phoenix, AZ	297	297	311	360	388	440	527	553	475	520	595	719	471	506	723	389	438	632	725	836	738	788	788
AZ014	Fort Huachuca, AZ	224	224	234	244	292	310	366	428	448	356	403	458	551	357	415	501	302	359	454	564	609	612	689
AZ015	Davis-Monthan AFB, AZ	272	272	272	272	320	345	358	470	471	413	454	535	633	405	446	554	326	379	540	620	733	734	734
AZ016	Yuma, AZ	322	322	332	343	376	416	458	524	579	472	520	594	712	494	542	656	405	465	603	720	763	763	763
AZ017	Navajo County, AZ	170	190	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	612	689
CA018	Oakland, CA	525	525	525	525	618	618	645	721	749	702	782	877	1032	748	804	995	618	702	841	991	1081	1159	1159
CA019	San Francisco, CA	549	549	549	549	646	646	660	766	842	792	897	988	1148	809	888	1081	689	755	962	1276	1276	1276	1276
CA020	Castle AFB, CA	286	286	290	307	364	413	458	536	621	433	510	572	680	456	500	623	360	417	541	651	675	734	734
CA021	China Lake NAVWEPEN, CA	298	298	298	298	351	352	402	486	537	401	455	548	616	442	475	574	351	422	519	651	659	713	713
CA022	Fresno, CA	311	311	311	313	366	397	449	537	579	453	526	580	690	481	530	627	386	458	573	710	736	776	776
CA023	Lemoore NAS, CA	311	311	311	311	366	386	437	476	552	450	521	578	694	482	523	625	382	454	581	702	738	762	762
CA024	Camp Pendleton, CA	465	465	465	465	547	547	563	664	638	588	649	697	817	582	625	786	547	583	691	864	894	925	925
CA025	Ventura, CA	537	537	537	537	632	632	633	732	798	685	732	843	926	695	764	870	632	708	815	969	1003	1032	1032
CA026	Vandenberg AFB, CA	354	354	372	388	444	482	531	616	661	503	551	640	714	517	555	687	451	497	608	759	776	803	803
CA027	Marin/Sonoma, CA	479	479	479	479	563	577	646	750	765	715	817	868	1038	730	800	927	626	717	893	1011	1022	1094	1094
CA028	Barstow/Fort Irwin, CA	308	308	308	323	362	373	403	531	590	418	461	561	613	449	483	575	362	438	500	651	695	710	739
CA029	George AFB, CA	337	337	337	337	396	396	436	530	598	445	490	584	656	467	504	607	386	443	543	679	742	756	794
CA030	Edwards AFB, CA	388	388	388	388	457	457	457	578	635	483	525	629	697	509	558	651	457	505	600	730	776	809	847
CA031	San Bernardino, CA	441	441	441	441	519	519	519	581	622	519	573	660	747	522	567	675	519	519	615	772	848	889	905
CA032	Twentynine Palms MCB, CA	248	248	248	248	292	318	370	414	514	384	437	508	578	386	415	533	308	368	457	610	673	682	732

Q-2

\*Shaded rates represent an increase to 1992 HA rates.

Table Q-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
CA033	Beale AFB, CA	252	252	256	282	354	380	475	528	568	425	496	554	666	436	499	614	319	405	557	658	718	735	735
CA034	Sacramento, CA	388	388	388	388	456	456	514	593	639	499	574	638	755	505	577	709	456	470	630	731	820	872	872
CA035	Stockton, CA	354	354	354	416	446	446	509	555	643	483	571	638	742	500	558	679	416	477	603	751	780	813	813
CA036	Vallejo/Travis AFB, CA	422	422	422	422	496	506	576	639	670	550	641	701	807	562	626	719	486	544	671	825	804	865	865
CA037	Los Angeles, CA	522	522	522	522	615	615	652	750	775	758	812	920	1018	742	804	953	670	740	890	1082	1133	1177	1200
CA038	San Diego, CA	444	444	444	444	522	522	552	634	658	638	679	760	867	627	710	840	546	614	756	952	1017	1080	1112
CA039	Monterey, CA	436	436	436	442	513	529	623	711	768	651	792	821	963	667	754	884	561	634	784	997	967	1064	1064
CA040	Bakersfield, CA	349	349	349	349	411	424	481	576	634	514	567	663	744	541	588	700	442	522	636	797	837	855	871
CA041	Riverside, CA	441	441	441	441	519	519	542	629	642	549	598	681	774	558	600	696	519	554	655	790	808	852	907
CA042	Humboldt County, CA	279	279	324	341	390	442	489	556	594	457	514	586	688	490	535	644	393	457	587	707	747	750	750
CA043	San Luis Obispo, CA	584	584	584	584	688	688	723	776	824	761	867	942	1078	778	885	994	688	764	916	1126	1132	1202	1202
CA044	San Luis Obispo, CA	487	487	487	487	573	573	573	573	603	573	573	621	737	573	573	672	573	573	591	763	791	800	800
CA045	Bridgeport, CA	313	313	313	313	373	393	442	512	548	465	526	594	699	491	542	644	403	478	606	705	748	768	768
CO045	Denver, CO	264	264	264	290	349	375	417	491	492	424	468	523	622	468	503	587	378	457	568	628	647	660	660
CO046	Colorado Springs, CO	238	238	238	238	283	308	348	402	442	375	432	448	548	408	438	525	317	377	486	564	619	632	683
CO047	Fort Collins, CO	303	303	303	303	357	357	408	476	508	407	452	498	600	446	481	557	364	425	517	608	642	647	639
CO048	La Junta/Rocky Ford, CO	302	302	302	302	355	355	355	384	418	355	380	428	509	357	415	488	355	359	452	564	609	632	639
CT049	New London, CT	455	455	455	455	536	536	551	605	642	556	613	710	828	569	655	757	536	548	680	846	933	934	934
CT050	Hartford, CT	469	469	469	469	551	551	565	652	705	624	684	795	928	642	739	851	551	639	776	941	995	1008	1010
CT051	New Haven/Fairfield, CT	438	438	438	438	450	450	515	532	578	732	726	816	918	1067	752	863	638	750	904	1081	1146	1163	1163
DC053	Washington, DC Metro Area	534	534	534	534	528	628	636	709	771	703	781	853	954	676	774	882	628	684	835	962	987	950	1014
DE054	Dover AFB, DE	363	363	363	363	427	427	427	528	587	463	508	569	675	462	510	609	427	441	555	678	712	713	713
DE055	Rehoboth Beach, DE	320	320	320	320	377	377	423	521	576	466	515	577	686	472	523	615	384	439	558	696	722	722	722
FL056	Eglin AFB, FL	209	210	259	277	312	312	332	373	443	387	427	496	596	400	459	547	341	388	507	644	677	733	733
FL057	Gainesville, FL	310	310	310	310	364	364	394	465	514	410	477	542	628	442	493	575	364	433	539	662	702	716	716
FL058	Jacksonville, FL	288	288	304	314	354	388	433	510	547	459	532	587	665	491	530	649	405	476	580	725	760	780	780
FL059	Palmdale AFB, FL	287	287	295	315	344	374	425	492	551	450	484	567	654	438	511	610	366	451	586	709	762	771	771
FL060	Miami, FL	365	365	365	397	453	453	473	583	633	571	626	712	852	580	647	784	503	569	722	868	1020	1021	1021
FL061	Fort Lauderdale, FL	394	394	420	422	463	503	558	643	685	624	682	769	899	632	704	832	559	642	772	950	983	1011	1011
FL062	Orlando, FL	346	346	346	346	407	411	462	534	577	492	515	608	721	476	560	671	412	503	610	733	824	825	825
FL063	Panama City, FL	234	234	234	252	294	314	362	449	450	377	413	485	584	380	447	555	322	392	518	618	663	731	731
FL064	Pensacola, FL	268	268	268	268	316	316	355	412	425	355	407	467	553	370	415	512	317	359	479	564	632	751	751
FL065	Tallahassee, FL	335	335	335	335	394	394	394	472	497	428	472	549	659	448	499	616	394	451	563	677	746	772	772
FL066	Tampa, FL	332	332	332	332	391	391	394	438	526	480	521	612	736	459	549	665	411	448	619	755	827	845	845
FL067	West Palm Beach, FL	470	470	470	470	553	553	553	586	635	561	612	690	820	573	631	751	553	579	704	857	905	922	940

Q-3

\*Shaded rates represent an increase to 1992 HA rates.

Table Q-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
FL068	Astor, FL	238	236	263	274	327	348	376	466	519	427	470	544	633	437	497	587	348	430	538	677	717	719	719
FL069	Key West, FL	600	600	600	600	706	706	706	731	775	715	780	860	980	723	811	926	706	729	893	1001	1035	1061	1061
FL070	Volusia County, FL	281	291	291	292	343	367	404	478	538	430	472	540	617	438	489	577	357	430	522	663	698	699	699
FL328	Avon Park/Sebring, FL	248	248	248	252	311	328	392	460	511	409	446	527	629	396	472	581	323	401	525	666	725	735	735
FL397	Polk County, FL	270	270	270	270	317	328	372	448	507	394	428	506	602	378	455	557	317	384	497	637	700	718	718
GA071	Atlanta, GA	359	359	359	359	422	422	422	454	519	538	497	507	597	686	484	521	416	422	496	586	701	762	742
GA072	Albany, GA	248	248	248	248	291	297	328	384	418	321	380	428	509	357	415	488	302	359	452	564	609	632	689
GA073	Fort Gordon, GA	290	290	290	290	341	341	350	439	464	374	424	490	574	412	443	510	362	394	493	572	651	704	704
GA074	Kings Bay/Brunswick, GA	286	286	286	286	338	369	402	485	504	412	490	548	649	472	521	587	392	449	556	673	746	746	746
GA075	Fort Benning, GA	269	269	269	269	318	316	345	427	472	385	423	482	569	387	432	515	354	379	487	575	641	651	689
GA076	Robins AFB, GA	265	265	265	265	311	316	344	391	455	360	390	454	540	366	415	497	311	359	452	564	609	632	689
GA077	Savannah, GA	345	345	345	345	406	406	406	470	495	406	431	530	611	469	505	570	408	446	513	650	693	690	724
GA078	Athens, GA	261	261	261	262	307	337	397	461	480	425	463	535	634	435	487	586	326	433	535	658	696	721	721
GA079	Dahlonega, GA	249	249	249	261	301	333	371	443	473	395	417	490	577	404	434	531	307	388	477	587	621	632	689
GA080	Fort Stewart, GA	260	260	263	278	307	332	364	444	472	369	403	468	562	409	461	520	376	404	489	610	650	655	689
GA081	Moody AFB, GA	260	260	260	260	306	317	349	413	455	344	396	452	532	371	415	490	306	359	452	564	609	632	689
HI408	Honolulu County, HI	665	665	665	665	783	783	783	872	889	783	838	948	1034	798	885	1046	783	825	825	825	825	825	825
HI409	Hawaii County, HI	512	512	512	512	603	603	603	659	706	603	663	773	843	631	691	837	603	644	764	923	923	924	946
IA082	Des Moines, IA	323	323	323	323	379	379	389	473	497	404	459	525	617	432	474	569	379	414	541	623	668	668	689
IA083	Ames, IA	312	312	312	312	367	367	367	419	449	387	401	464	543	372	415	499	367	387	452	564	609	632	689
ID084	Boise, ID	281	281	281	281	331	333	385	446	476	373	427	511	605	412	456	552	331	386	500	626	669	690	690
ID085	Idaho Falls, ID	196	196	234	238	274	297	332	407	442	335	394	457	550	368	415	501	302	359	460	567	616	632	689
ID086	Mountain Home AFB, ID	234	234	234	238	276	297	328	391	427	318	380	428	511	357	415	488	302	359	452	564	609	632	689
ID087	Pocatello, ID	200	200	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
ID333	Moscow, ID/Pullman, WA	204	204	234	238	274	297	342	409	459	338	391	458	546	378	415	503	302	359	452	571	628	643	689
IL088	Charute AFB, IL	207	207	234	238	274	297	328	384	418	347	389	451	546	375	415	508	302	359	454	564	617	634	689
IL089	Rock Island, IL	294	294	294	294	346	346	346	410	449	346	383	438	533	365	415	493	348	359	452	564	609	632	689
IL090	Peoria, IL	300	300	300	300	353	353	353	417	457	366	406	473	569	391	426	523	353	365	478	572	631	652	689
IL092	Great Lakes NAVTRACEN, IL	445	445	445	445	523	523	523	552	623	576	631	717	783	590	647	749	523	602	707	869	1024	1025	1025
IL093	Scott AFB, IL	252	252	281	281	335	353	399	490	476	446	490	564	671	478	512	652	381	433	549	687	736	788	788
IL325	Chicago, IL	528	528	528	528	621	621	621	621	630	621	621	683	788	621	634	750	621	621	693	832	926	940	951
IL335	Springfield/Decatur, IL	321	321	321	321	378	378	378	434	468	392	424	499	615	418	449	564	378	379	509	614	678	695	695
IL363	Winnebago, IL	299	299	299	299	351	351	362	438	501	393	430	511	567	420	452	546	351	401	498	632	681	730	730
IL366	Joliet Army Depot, IL	328	328	328	328	386	386	386	497	546	427	470	547	615	456	490	594	386	437	537	669	743	754	754
IN094	Indianapolis/Ft Harrison, IN	306	306	306	306	356	356	356	443	500	414	471	524	635	444	487	588	396	422	517	631	664	706	706

Q-4

\*Shaded rates represent an increase to 1992 HA rates.



Table Q-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
IN095	Grisson AFB, IN	267	267	287	267	314	314	337	384	431	318	380	428	509	357	415	488	314	359	452	564	609	632	689
IN096	Lafayette, IN	314	314	314	314	370	370	380	454	498	370	422	474	571	400	429	528	370	370	462	564	612	632	689
IN097	Fort Wayne, IN	301	301	314	301	354	354	375	449	485	405	465	519	625	436	472	574	355	416	524	639	680	690	690
IN099	South Bend, IN	352	352	352	352	414	414	414	414	447	414	414	459	529	414	415	496	414	414	452	572	618	654	689
IN337	Evansville, IN	286	286	286	286	337	337	337	384	418	337	380	428	509	357	415	488	337	359	452	564	609	632	689
IN338	Terre Haute, IN	278	278	278	278	325	325	328	384	418	347	387	452	525	372	415	492	325	359	452	564	610	632	689
IN367	Gary, IN	353	353	353	353	415	415	415	455	511	415	452	518	597	441	473	566	415	416	516	634	681	732	735
IN399	Bloomington, IN	303	303	303	303	357	357	387	445	482	390	431	503	567	412	454	540	357	395	477	606	647	656	689
KS100	Fort Riley, KS	256	256	256	256	301	301	342	398	435	368	415	470	572	367	415	496	318	359	452	564	609	632	689
KS101	Wichita McConnell AFB, KS	287	287	287	287	337	337	337	391	426	460	436	487	569	376	455	496	363	444	589	710	735	759	759
KS102	Fort Leavenworth, KS	249	249	249	253	297	332	373	436	470	384	441	507	616	405	450	564	335	392	501	586	626	644	689
KS104	Lawrence, KS	224	229	281	281	328	367	407	477	500	431	486	558	666	447	491	602	384	439	550	643	687	703	708
KS105	Topeka, KS	277	277	277	277	326	326	349	425	448	389	435	505	607	398	436	542	340	392	498	583	624	632	689
KY106	Fort Campbell, KY	243	243	243	243	286	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
KY107	Lexington, KY	303	303	303	303	357	357	357	445	477	395	428	494	584	416	456	531	357	390	496	621	658	669	689
KY109	Louisville, KY	299	299	299	299	352	352	352	406	431	387	424	499	589	404	460	534	352	396	495	633	694	700	707
KY110	Fort Knox, KY	223	223	234	238	274	297	328	384	421	318	380	428	509	357	415	488	302	359	452	564	609	632	689
LA113	England AFB, LA	225	225	234	238	274	297	328	398	437	335	380	446	554	376	415	494	312	359	452	569	620	635	689
LA114	Baton Rouge, LA	211	211	246	275	308	343	380	481	496	383	435	503	578	401	445	545	332	397	491	606	662	677	689
LA115	Fort Polk, LA	242	242	242	242	285	297	341	395	451	318	380	428	517	357	415	488	302	359	452	564	609	632	689
LA116	New Orleans, LA	279	279	279	279	328	343	388	456	462	406	463	546	596	412	470	560	342	412	499	607	676	721	721
LA117	Shreveport/Barksdale AFB, LA	235	235	246	259	297	313	347	397	435	370	421	493	595	402	432	557	328	400	504	595	647	678	689
LA118	Lafayette, LA	183	206	242	252	287	318	393	447	489	366	422	494	593	405	436	550	333	392	495	630	680	712	716
LA326	St Mary and Terrebonne, LA	213	213	234	239	286	305	354	431	457	356	401	463	536	366	415	506	302	360	455	564	619	632	689
LA370	Lake Charles, LA	267	267	267	273	314	316	375	444	493	377	427	501	612	411	441	557	349	405	519	640	681	707	713
LA371	Monroe, LA	229	229	234	245	278	303	355	416	451	360	418	485	593	396	426	537	311	383	492	607	655	677	689
MA120	Boston, MA	622	622	622	622	732	732	732	732	745	736	799	731	1073	745	863	1010	732	732	920	1176	1233	1224	1224
MA121	Cape Cod, MA	407	407	407	410	479	479	546	607	645	523	561	665	761	533	602	709	479	529	640	782	825	840	840
MA122	Worcester, MA	488	488	488	488	574	574	587	644	695	613	664	780	901	626	715	845	574	622	764	941	1062	1099	1099
MA123	Fort Devens/Ayer, MA	369	369	389	400	471	510	581	633	694	633	687	794	916	643	737	871	548	632	768	940	1048	1048	1048
MA124	Brickton/S Weymouth, MA	594	594	594	594	699	699	699	751	770	714	771	895	1023	727	824	964	693	729	906	1043	1114	1118	1124
MA125	Essex Co, MA	598	598	598	598	704	704	704	704	709	704	704	789	903	704	727	847	704	704	775	946	997	998	1004
MA126	Hampden County, MA	410	410	410	410	482	482	482	513	586	636	505	555	663	781	522	597	707	482	508	623	807	859	869
MA377	Hanscomb AFB, MA	568	598	598	598	704	704	704	748	788	704	727	848	967	704	794	915	704	704	838	1013	1081	1081	1081
MD127	Aberdeen Proving Grounds, MD	285	295	295	304	367	389	450	492	593	491	547	612	724	493	546	653	420	466	588	703	737	758	758

Q-5

\*Shaded rates represent an increase to 1992 HA rates.

Table Q-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
MD128	Annapolis, MD	516	516	516	516	607	607	607	696	743	622	676	751	873	624	692	796	607	607	730	910	901	916	916
MD129	Baltimore, MD	452	452	452	452	532	532	532	624	666	612	679	724	858	615	680	781	532	593	721	855	880	906	906
MD130	Fort Detrick, MD	435	435	435	435	512	512	512	605	650	536	586	656	760	535	597	706	512	520	632	756	784	811	811
MD131	Fort Riche, MD	333	333	333	333	392	392	392	424	496	404	456	512	611	410	461	548	392	392	511	606	649	650	689
MD133	Fort G. Meade, MD	516	516	516	516	607	607	607	666	713	631	685	759	872	625	699	796	607	626	761	872	876	904	904
MD134	Indian Head NAVFORSSTA, MD	521	521	521	521	612	612	612	694	739	612	637	699	807	612	648	724	612	612	684	804	810	834	834
MD135	Paluxent River, MD	452	452	452	452	532	532	532	600	664	578	642	696	820	606	660	761	532	581	698	817	853	867	867
ME136	Brunswick, ME	448	448	448	448	527	527	527	537	601	527	597	652	771	542	619	709	527	553	623	784	818	830	830
ME137	Long AFB, ME	236	236	241	259	298	333	370	448	489	347	395	456	543	377	415	512	302	359	452	577	612	632	632
ME139	Portland, ME	389	389	389	389	457	460	495	587	622	541	597	680	801	556	625	736	467	559	659	837	877	884	884
ME140	Bar Harbor, ME	363	363	363	363	427	427	427	467	505	432	502	556	655	450	511	608	427	447	555	673	709	713	713
ME390	Bangor, ME	359	359	359	359	422	422	422	429	504	546	462	531	587	479	542	638	422	478	596	712	742	748	748
MI142	Detroit, MI	440	440	440	440	518	518	518	518	545	534	599	693	817	554	625	764	518	543	677	906	922	936	950
MI143	KI Sawyer AFB, MI	301	301	301	301	354	354	354	390	445	374	428	496	593	404	444	543	354	369	497	603	665	670	689
MI145	Sault Ste Marie, MI	241	241	241	241	284	297	328	396	444	319	380	430	518	357	415	488	302	359	452	564	609	632	689
MI146	Traverse City, MI	367	367	367	367	431	431	431	509	551	465	528	595	699	499	538	643	431	478	592	730	789	790	803
MI148	Muskegon, MI	384	384	384	384	451	451	451	451	493	451	451	515	594	451	454	552	451	451	504	637	685	710	710
MI149	Port Huron, MI	321	321	321	321	378	378	394	469	526	435	489	565	678	457	508	615	378	437	556	697	743	765	785
MI150	Wurtsmith AFB, MI	299	299	299	299	351	351	351	420	463	351	380	433	522	361	415	488	351	359	452	564	609	632	689
MI152	Battle Creek/Kalamazoo, MI	303	303	303	303	358	358	358	372	446	409	473	540	663	436	476	585	356	416	535	650	713	734	762
MI153	Lansing, MI	362	362	362	362	426	426	426	458	493	426	437	507	610	426	447	535	426	426	494	610	655	667	689
MI154	Grand Rapids, MI	350	350	350	350	411	411	411	411	477	436	496	566	670	467	503	612	411	451	564	693	747	771	771
MI155	Ann Arbor, MI	419	419	419	419	493	493	493	496	593	531	586	669	782	547	606	706	493	546	670	781	843	852	852
MI156	Saginaw, MI	343	343	343	343	403	403	403	440	476	403	443	514	613	420	453	548	403	403	501	628	669	679	689
MI341	Flint, MI	304	304	304	304	358	358	358	385	465	422	474	551	655	447	488	590	358	424	538	672	716	730	742
MI158	Duluth, MN	384	384	384	384	451	451	451	451	458	451	451	478	579	451	451	525	451	451	474	602	646	660	689
MI159	Minneapolis/St Paul, MN	377	377	377	377	443	443	443	481	566	564	582	657	786	554	607	715	463	549	646	837	858	859	859
MO160	Kansas City, MO	299	299	299	299	352	352	352	423	470	422	484	551	666	453	506	604	374	436	550	654	714	718	723
MO161	St Louis, MO	273	273	273	273	337	337	337	367	405	316	380	435	517	357	415	488	302	359	452	564	609	632	689
MO162	Whiteman AFB, MO	169	190	234	78	274	297	334	412	440	316	380	435	517	357	415	488	302	359	452	564	609	632	689
MO163	Fort Leonard Wood, MO	201	201	234	8	274	297	328	399	433	316	380	428	509	357	415	488	302	359	452	564	609	632	689
MO164	Springfield, MO	234	234	234	238	276	307	351	421	461	348	401	469	554	382	426	509	302	360	458	569	611	632	689
MO165	Columbia/Jefferson City, MO	250	250	250	250	294	309	341	421	448	339	396	461	550	379	416	505	302	359	453	564	609	632	689
MS168	Gulport, MS	248	248	248	248	292	297	332	400	434	337	387	468	537	357	415	488	302	359	452	564	617	632	689
MS169	Columbus AFB, MS	210	210	234	238	274	308	337	398	452	363	394	454	535	359	416	492	302	359	452	564	618	632	689

\*Shaded rates represent an increase to 1992 HA rates.

Q-6

Table Q-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7	
MS170	Jackson, MS	248	248	248	248	300	325	359	433	475	376	409	468	563	382	424	510	308	365	463	564	619	632	669	
MS171	Meridian, MS	240	240	240	240	282	297	339	407	455	344	380	438	530	357	415	488	302	359	452	564	609	632	689	
MS172	Hattiesburg, MS	219	219	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689	
MT175	Malmstrom AFB/Great Fls, MT	194	194	234	238	274	297	344	405	442	318	380	428	509	357	415	488	302	359	452	564	609	632	689	
NC177	Morehead Cherry Pt MCAS, NC	226	226	245	262	297	319	347	427	428	396	409	455	563	402	432	501	336	385	479	605	619	638	689	
NC178	Camp Lejeune, NC	222	222	244	257	291	316	349	396	418	412	425	494	593	404	434	495	363	428	488	582	652	652	689	
NC179	Charlotte, NC	336	336	336	336	395	395	395	435	494	408	436	494	597	424	455	541	395	423	505	612	654	677	689	
NC180	Durham/Chapel Hill, NC	357	357	357	357	420	420	420	457	503	456	485	559	670	471	515	600	420	470	563	671	729	740	740	
NC181	Elizabeth City, NC	269	269	269	269	316	325	369	438	482	415	456	506	597	447	486	552	342	404	507	624	619	667	689	
NC182	Fort Bragg/Pope AFB, NC	264	264	264	268	310	326	351	427	455	413	417	469	588	401	431	499	352	399	469	564	609	632	689	
NC183	Seymour Johnson AFB, NC	247	247	247	260	298	334	363	408	441	408	421	480	582	416	447	511	353	416	481	567	634	634	689	
NC184	Greensboro, NC	312	312	312	312	367	387	388	450	492	441	475	546	656	459	493	586	383	448	563	668	728	752	757	
NC185	Raleigh, NC	336	336	336	347	414	406	472	522	563	493	514	581	698	511	549	631	444	509	594	690	753	754	754	
NC186	Wilmington, NC	303	303	303	303	358	356	371	446	471	458	472	537	650	468	509	581	400	463	565	660	709	732	732	
ND188	Bismarck, ND	254	254	254	254	299	299	299	329	384	418	322	380	434	518	357	415	488	302	359	452	564	609	632	689
ND189	Fargo, ND	310	310	310	310	365	365	369	445	489	388	440	505	594	401	451	549	365	389	492	616	656	661	689	
ND190	Grand Forks, ND	293	293	293	293	345	345	345	400	429	367	421	488	580	387	432	535	345	359	452	618	653	671	689	
ND191	Minot AFB, ND	216	216	234	256	274	297	328	384	418	318	380	432	521	357	415	488	302	359	452	564	609	632	689	
NE192	Omaha/Offutt AFB, NE	309	309	309	309	363	375	425	488	496	411	470	532	628	427	466	587	383	423	550	633	660	667	689	
NE193	Lincoln, NE	299	299	299	299	352	352	382	436	492	366	415	474	572	377	428	524	352	369	488	576	609	632	689	
NH194	Portsmouth, NH/Kittery, ME	385	385	385	385	453	453	500	590	632	521	574	664	775	531	600	706	453	517	643	834	869	870	871	
NH195	Manchester/Concord, NH	377	377	377	377	443	456	499	610	647	557	601	709	822	569	647	768	470	564	679	879	921	922	923	
NJ196	Atlantic City, NJ	404	404	404	404	475	476	525	605	653	551	600	671	780	576	605	686	482	524	658	796	814	796	796	
NJ198	Cape May, NJ	442	442	442	442	519	519	519	566	624	519	533	596	706	519	542	636	519	519	591	701	731	732	732	
NJ200	Fort Monmouth/Ears NWS, NJ	518	518	518	518	609	609	623	682	734	694	773	846	998	715	785	913	616	684	848	1000	1045	1049	1049	
NJ201	Perth Amboy, NJ	517	517	517	517	609	609	609	674	716	691	766	842	989	709	789	915	614	698	857	1003	1071	1072	1072	
NJ202	Northern New Jersey	517	517	517	517	609	609	609	644	694	638	708	784	928	661	724	843	609	631	756	938	973	995	995	
NJ203	Trenton, NJ	471	471	471	471	554	554	574	653	700	616	673	754	891	634	700	815	554	624	761	895	944	949	949	
NJ204	Fort Dix/McGuire/Lakehurst, NJ	374	374	374	374	441	452	477	619	638	541	598	673	800	561	605	715	464	528	660	782	833	834	834	
NM205	Holloman AFB/Alamogordo, NM	256	256	256	256	302	302	328	406	425	319	380	441	538	357	415	488	302	359	452	564	609	632	689	
NM206	Abuquerque/Kirtland AFB, NM	298	298	298	298	351	371	419	480	551	418	453	516	606	429	471	552	351	383	490	605	664	672	689	
NM207	Cannon AFB/Clovis, NM	227	227	234	238	274	297	328	404	447	351	401	469	563	373	415	523	302	359	481	593	638	654	654	
NM208	Gallop, NM	238	238	238	238	281	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689	
NM209	White Sands MRLas Cruces, NM	264	264	264	264	311	311	354	410	446	355	408	493	604	380	434	535	331	383	489	616	655	684	709	
NM210	Sanita Fe/Los Alamos, NM	379	379	379	378	446	446	446	513	557	467	508	572	670	477	525	615	446	451	578	689	724	727	727	

Table Q-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
NY211	Fallon NAS, NV	249	252	304	325	369	377	431	513	554	460	519	590	702	489	540	651	404	477	590	715	770	774	774
NY212	Nellis AFB/Las Vegas, NV	364	364	364	366	428	436	486	545	588	497	560	630	737	528	588	689	429	493	653	757	861	862	862
NY213	Carson City, NV	317	317	362	372	421	452	492	569	616	510	574	648	765	538	588	706	445	532	659	764	819	830	830
NY215	Ballston Spa/Albany, NY	431	431	431	431	508	508	508	574	598	508	511	595	712	508	552	674	508	508	604	695	766	790	790
NY216	Buffalo, NY	313	313	313	313	368	368	368	441	488	412	457	542	637	435	468	585	368	421	542	665	713	729	729
NY217	West Point, NY	499	499	499	499	588	588	588	684	726	652	728	817	966	689	765	877	588	673	837	948	1031	1036	1036
NY218	Long Island, NY	676	676	676	676	796	796	796	796	796	796	796	800	939	796	796	860	796	796	814	936	984	1003	1003
NY219	New York City, NY	617	617	617	617	726	726	726	726	726	726	726	800	939	726	753	860	726	726	814	936	984	1003	1003
NY220	Plattsburgh, NY	340	340	340	340	400	400	400	496	528	411	470	528	640	446	486	583	400	415	544	656	695	710	715
NY221	Rochester, NY	379	379	379	379	445	445	445	514	550	445	486	586	677	483	519	617	445	451	584	695	738	747	747
NY222	Rome/Griffiss AFB, NY	289	289	289	292	340	356	415	475	551	345	445	541	637	440	473	597	348	406	514	622	655	678	669
NY223	Seneca Army Dep/Syracuse, NY	366	366	366	366	430	430	430	490	547	443	548	652	779	543	583	723	430	500	677	793	847	872	882
NY225	Fort Drum/Watertown, NY	349	349	349	349	410	410	410	450	512	410	438	526	624	430	462	560	410	410	495	611	661	677	689
NY226	Binghamton/Ithaca, NY	345	345	345	345	405	405	405	438	481	531	407	497	588	691	494	531	636	405	457	581	694	737	749
NY349	Westchester County, NY	721	721	721	721	848	848	848	848	848	848	848	925	1091	848	872	1001	848	848	978	1108	1178	1213	1276
NY395	Jamestown, NY	308	308	308	308	363	363	363	426	473	371	413	491	581	399	431	531	363	379	484	613	648	660	689
OH227	Akron, OH	358	356	356	356	419	419	419	452	512	424	486	539	645	447	502	587	419	435	530	677	733	754	754
OH228	Cincinnati, OH	313	313	313	313	368	368	413	467	490	384	413	471	553	405	448	511	368	386	474	566	621	632	689
OH229	Cleveland, OH	383	383	383	383	451	451	451	532	575	483	545	613	733	502	569	670	451	498	609	772	833	866	866
OH230	Columbus, OH	293	293	293	293	344	344	344	387	468	408	452	516	624	429	472	561	348	401	537	618	715	715	715
OH231	Wright-Patterson AFB, OH	344	344	344	344	404	404	404	483	496	412	451	518	624	444	478	578	404	417	525	649	679	705	705
OH232	Toledo, OH	322	322	322	322	379	379	379	449	498	404	452	526	628	422	471	568	379	407	509	651	697	708	708
OH233	Youngstown, OH	261	261	261	261	307	317	342	403	479	353	397	451	546	379	415	500	307	359	452	570	624	635	635
OH382	Mansfield, OH	220	220	234	238	274	297	331	396	455	347	389	455	560	369	415	505	302	359	458	585	645	666	683
OK235	Altus AFB, OK	206	206	234	238	274	297	328	384	418	334	385	442	523	357	415	488	302	359	452	564	609	632	643
OK236	Vance AFB/End, OK	187	190	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	643
OK237	Fort Sill/Lawton, OK	219	219	234	238	274	297	328	384	418	333	380	434	518	357	415	488	302	359	452	564	609	632	643
OK239	Oklahoma City, OK	229	229	234	238	274	297	328	384	418	338	383	434	518	357	415	488	302	359	452	564	609	632	643
OK240	Tulsa, OK	263	263	263	263	310	324	357	415	481	362	393	469	555	383	421	511	310	365	458	572	615	632	643
OR241	Astoria, OR	270	270	270	270	318	323	357	436	481	391	465	518	597	418	476	564	336	400	524	639	672	673	689
OR242	Coos Bay, OR	228	228	234	243	297	327	382	442	493	362	416	494	582	383	432	542	372	359	486	590	641	643	643
OR243	Portland, OR	351	351	351	351	413	413	440	492	519	429	494	549	633	452	508	584	413	445	544	660	727	727	727
OR244	Salem, OR	275	275	275	278	323	342	393	463	494	404	456	506	598	425	481	561	342	414	512	617	659	667	689
OR245	Corvallis, OR	300	300	300	300	353	354	402	471	505	375	427	476	566	391	446	531	353	384	468	586	626	632	689
OR246	Eugene, OR	313	313	313	313	368	368	377	442	477	387	440	501	595	404	451	556	368	396	503	616	656	678	689

Q-8

\*Shaded rates represent an increase to 1992 HA rates.

Table Q-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
PA247	Carlisle Barracks, PA	368	366	368	368	430	430	430	484	562	430	474	530	641	430	483	550	430	430	526	657	662	671	689
PA248	Philadelphia, PA/Camden, NJ	458	458	458	458	539	539	539	627	677	606	649	731	867	608	661	772	539	563	752	877	895	926	926
PA249	NAS Willow Grove, PA	335	335	435	435	512	516	571	692	732	668	721	802	945	671	731	895	570	648	816	946	1016	1017	1017
PA250	Pittsburgh, PA	357	357	357	357	420	420	420	482	482	420	482	500	597	433	466	525	420	420	507	605	669	674	689
PA251	Reading, PA	396	396	396	396	466	466	466	529	597	506	550	620	734	511	556	664	466	484	607	742	769	769	769
PA252	State College, PA	417	417	417	417	491	491	491	491	534	491	491	540	631	491	491	589	491	491	530	659	690	696	696
PA253	Erie, PA	300	300	300	300	352	352	356	416	474	376	420	490	561	400	446	538	352	388	488	613	667	682	689
PA254	Wilkes-Barre/Scranton, PA	371	371	371	371	436	436	436	436	490	436	450	511	625	436	455	565	436	436	504	632	669	670	689
PA255	Allentown/Bethlehem, PA	392	392	392	392	461	461	493	567	621	533	588	664	795	550	607	723	461	531	666	810	851	854	854
PA380	Lehigh Valley Army Depot, PA	238	238	238	238	280	280	314	375	457	394	442	504	604	401	448	540	323	375	489	600	619	632	689
PA383	Johnstown, PA	250	250	250	250	294	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
RI256	Newport, RI	551	551	551	551	648	648	648	648	702	648	648	736	838	648	670	795	648	648	686	878	920	921	921
RI257	Providence, RI	494	494	494	494	581	581	581	581	620	581	599	686	794	581	628	753	581	581	640	823	880	887	904
SC258	Beaufort/Parris Island, SC	305	305	305	305	359	359	359	397	457	381	430	479	571	439	472	533	374	430	489	609	654	657	689
SC259	Charleston, SC	309	309	309	309	364	364	364	379	457	381	430	479	571	439	472	533	374	430	489	609	654	657	689
SC260	Columbia/Fort Jackson, SC	304	304	304	304	358	358	362	471	485	422	478	542	627	464	499	565	303	435	537	639	728	774	774
SC261	Greenville, SC	299	299	299	299	352	352	352	352	443	392	444	505	603	412	442	559	352	403	521	635	696	728	728
SC262	Myrtle Beach AFB, SC	271	271	278	288	319	356	378	455	489	431	449	512	614	459	493	543	374	427	502	639	689	690	690
SC263	Sumter/Shaw AFB, SC	249	249	249	258	294	325	369	423	440	365	403	449	539	392	421	488	317	362	452	578	609	634	689
SD264	Rapid City/Ellsworth AFB, SD	311	311	311	311	368	368	368	440	476	381	413	478	577	395	428	529	366	388	475	606	660	663	689
SD265	Sioux Falls, SD	281	281	281	281	331	331	352	372	453	406	459	523	619	434	476	569	344	414	518	647	684	684	689
TN266	Chattanooga, TN	278	279	279	279	329	329	333	359	438	386	431	502	581	412	443	546	329	396	493	589	638	659	689
TN267	Knoxville, TN	297	297	297	297	349	349	349	349	410	357	414	478	564	390	427	521	349	371	484	580	634	650	689
TN268	Memphis, TN	309	309	309	309	363	363	363	363	428	385	451	485	581	406	467	539	363	388	504	574	668	699	699
TN269	Nashville, TN	307	307	307	307	362	362	362	362	428	385	451	485	581	406	467	539	363	388	504	574	668	699	699
TN353	Johnson City/Kingsport, TN	301	301	301	301	354	354	354	403	444	354	381	445	531	368	415	488	354	359	452	564	603	632	689
TN354	Manchester/Tullahoma, TN	247	247	247	247	291	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
TX270	Abilene/Jyess AFB, TX	218	218	241	255	288	317	366	439	462	380	432	501	605	403	444	558	310	366	518	598	684	684	689
TX271	Amarillo, TX	218	218	234	238	274	297	336	412	445	342	391	457	548	366	415	502	302	359	452	569	616	632	689
TX272	Austin/Bergstrom AFB, TX	251	251	268	288	340	370	409	486	500	406	449	530	636	438	471	618	362	421	557	665	715	763	763
TX273	Beaumont, TX	251	251	251	256	301	337	384	440	493	360	402	480	581	407	437	533	329	385	493	597	648	677	689
TX274	College Station, TX	268	268	268	283	319	369	400	476	518	394	436	511	615	423	454	564	357	420	520	649	707	729	729
TX275	Corpus Christi, TX	256	256	264	275	318	360	395	481	516	409	465	547	644	411	486	592	335	331	556	641	727	746	746
TX276	Kingsville, TX	244	244	244	256	312	348	388	458	509	378	434	507	596	383	448	551	308	359	488	652	680	691	691
TX277	Dallas, TX	289	288	326	334	381	407	454	526	561	460	510	582	701	501	539	631	417	493	626	702	751	774	774

Q-9

\*Shaded rates represent an increase to 1992 HA rates.

Table Q-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
TX278	Laughlin AFB/Del Rio, TX	179	190	234	238	287	320	357	437	475	336	383	443	529	357	415	488	302	359	452	564	614	632	689
TX279	El Paso, TX	286	286	286	286	336	336	352	384	418	343	380	464	594	370	425	522	337	372	464	570	640	704	704
TX280	Galveston, TX	276	278	288	288	335	362	404	500	548	461	523	596	686	504	542	646	396	481	592	726	778	809	809
TX281	Brownsville, TX	227	227	236	249	292	321	380	465	501	383	435	509	600	397	456	555	314	378	494	635	681	698	698
TX282	Houston, TX	259	259	284	311	359	401	429	516	560	439	498	588	655	483	523	612	371	445	571	640	756	785	785
TX283	Lubbock/Reese AFB, TX	247	247	247	247	291	312	349	419	460	387	434	500	593	403	449	551	336	412	498	618	670	678	689
TX284	Goodfellow AFB, TX	260	260	260	260	306	312	339	418	460	370	425	494	594	389	440	555	306	364	510	597	655	673	689
TX285	San Antonio, TX	252	252	252	269	314	343	373	434	464	381	434	539	645	422	453	574	321	387	515	635	657	670	689
TX286	Fort Hood, TX	238	238	238	238	285	314	344	420	454	344	380	449	532	372	415	493	326	373	452	583	609	632	689
TX287	Toxarkana, TX	232	232	250	264	312	340	372	439	475	400	451	523	617	429	461	565	302	415	524	630	673	676	689
TX288	Wichita Falls/Sheppard AFB, TX	247	247	247	255	294	308	359	420	436	386	437	496	584	397	448	529	328	387	502	584	622	668	689
TX289	Beeville, TX	169	190	234	238	274	300	344	430	463	346	396	475	557	375	415	516	302	359	470	593	640	640	689
TX356	Fort Worth, TX	278	278	290	301	349	386	432	483	528	416	469	541	644	450	484	594	384	434	554	683	714	716	716
UT291	Ogden/Hill AFB, UT	256	258	256	258	301	301	348	420	433	337	385	446	524	358	415	408	302	359	452	564	609	632	689
UT292	Salt Lake City, UT	290	290	290	290	341	341	352	413	448	378	410	471	557	382	432	503	341	361	480	564	609	632	689
UT357	Provo, UT	282	282	282	282	331	331	331	384	418	331	380	437	521	357	415	488	331	359	452	564	609	632	689
VA295	Charlottesville, VA	392	392	392	392	461	481	461	514	557	461	518	575	676	461	522	613	481	461	560	664	713	714	714
VA296	Quantico/Woodbridge, VA	446	446	446	446	524	524	547	601	642	599	673	744	844	585	665	770	529	578	709	830	866	889	889
VA297	Hampton/Newport News, VA	301	301	301	308	354	392	440	504	525	472	521	588	656	500	546	627	397	458	568	692	722	728	728
VA298	Norfolk/Portsmouth, VA	318	318	318	334	375	407	453	505	551	511	595	593	703	542	583	658	431	487	613	723	785	810	810
VA300	Petersburg/Fort Lee, VA	290	290	290	290	341	360	400	456	511	419	479	521	616	454	495	564	349	403	501	642	681	682	689
VA301	Richmond, VA	345	345	345	345	406	406	406	434	485	548	443	504	547	647	475	519	408	441	520	675	699	712	712
VA302	Warrenton/Vint Hill Farm, VA	349	369	441	455	508	545	557	681	728	633	678	748	872	627	699	790	563	623	728	869	915	916	916
VA303	Lexington, VA	188	190	234	238	278	309	358	435	474	380	433	493	571	401	441	528	314	376	484	582	635	636	689
VA304	Wallops Island, VA	303	303	303	303	357	357	397	473	514	450	508	558	663	488	529	625	373	437	555	691	719	728	747
VA362	Roanoke, VA	308	308	308	308	362	362	362	409	453	362	407	470	556	380	419	506	362	362	464	571	623	636	644
VA368	Camp A P Hill, VA	398	396	396	396	466	466	466	549	596	478	532	599	632	497	545	619	468	468	564	658	727	729	729
VT305	Burlington, VT	375	375	375	375	442	442	442	554	601	497	556	617	739	529	577	677	442	509	629	754	804	817	817
WA306	Bremerton, WA	307	307	315	322	372	418	464	525	604	466	536	603	693	500	569	632	417	497	613	727	703	733	733
WA307	Everett, WA	320	320	365	367	435	474	516	573	628	518	606	663	761	554	618	707	466	554	660	756	800	800	800
WA308	Port Angeles, WA	233	233	234	238	274	315	363	433	484	355	420	485	561	393	434	518	302	382	466	578	609	632	689
WA309	Seattle, WA	318	318	354	344	419	455	491	547	601	532	610	679	796	571	637	726	457	577	720	784	908	908	908
WA310	Spokane, WA	220	220	234	248	297	307	366	414	474	343	392	457	542	377	415	497	302	362	452	564	639	639	639
WA311	Tacoma, WA	286	286	286	286	336	371	413	488	517	441	522	589	656	470	533	627	381	441	565	679	690	737	737
WA312	Whidbey Island, WA	301	301	316	331	385	427	465	543	615	466	538	611	682	302	550	640	419	499	601	694	710	724	724

Q-10

\*Shaded rates represent an increase to 1992 HA rates.

Table Q-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
WA313	Yakima, WA	297	297	297	297	349	349	385	448	497	395	461	528	611	423	471	562	349	406	518	624	659	672	689
WA315	Aberdeen, WA	208	208	234	238	274	333	372	440	482	358	426	483	566	391	442	521	302	371	471	576	613	632	689
WI316	Madison, WI	348	348	348	348	410	410	416	491	553	458	500	574	656	484	522	620	410	457	584	693	741	768	768
WI317	Milwaukee, WI	416	416	416	416	490	490	490	540	555	490	500	555	609	490	493	580	490	490	490	557	662	732	763
WI318	Sparta/Fort McCoy, WI	199	199	234	241	289	306	349	414	462	341	385	448	531	364	415	488	302	359	452	564	609	632	689
WI319	Oshkosh/Appleton, WI	283	283	283	283	333	333	350	428	471	377	422	479	569	395	435	528	333	376	472	595	631	634	689
WI358	Green Bay, WI	267	267	267	267	315	315	354	422	484	365	419	478	571	391	429	526	315	365	468	600	641	642	689
WI359	Stevenspoint, WI	266	266	266	266	313	324	391	459	504	410	467	538	635	438	482	583	342	413	529	653	701	712	722
WV320	Morgantown, WV	275	275	275	275	324	324	328	384	433	324	380	428	509	357	415	488	324	359	452	564	609	632	689
WV322	Sugar Grove, WV	203	203	234	238	274	297	328	384	418	324	380	428	510	357	415	488	302	359	452	564	609	632	689
WV323	Huntington, WV	254	254	254	254	309	320	365	434	480	380	418	482	574	395	441	520	310	379	470	595	637	640	689
WV323	Charleston, WV	284	284	284	284	334	334	348	413	464	386	435	500	590	407	455	533	334	386	493	605	653	659	689
WV360	Beckley, WV	203	203	234	238	274	297	328	388	438	346	397	460	541	372	415	490	302	359	452	564	609	632	689
WY324	Cheyenne, WY	258	258	258	258	303	303	332	409	459	344	383	429	514	383	415	488	313	359	452	564	609	632	689
ZZ530	County Cost Group	192	192	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
ZZ540	County Cost Group	213	213	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
ZZ550	County Cost Group	195	195	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
ZZ560	County Cost Group	191	191	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
ZZ570	County Cost Group	215	215	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
ZZ580	County Cost Group	172	190	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
ZZ590	County Cost Group	224	224	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
ZZ600	County Cost Group	221	221	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
ZZ610	County Cost Group	191	193	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
ZZ620	County Cost Group	231	231	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
ZZ630	County Cost Group	231	231	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
ZZ640	County Cost Group	221	221	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
ZZ650	County Cost Group	307	307	307	307	382	382	382	415	443	366	407	478	561	389	422	519	362	366	469	578	624	653	689
ZZ660	County Cost Group	258	258	258	258	304	321	361	423	452	376	419	490	571	396	430	528	318	377	478	589	636	666	689
ZZ670	County Cost Group	257	257	260	289	341	372	416	465	487	408	476	529	630	453	472	560	358	411	526	660	693	701	689
ZZ680	County Cost Group	318	318	318	318	374	374	381	442	472	389	438	512	596	414	451	553	374	392	500	617	667	691	711
ZZ690	County Cost Group	268	268	268	270	316	345	388	450	481	398	449	525	606	421	459	563	339	402	509	628	679	713	731
ZZ700	County Cost Group	246	246	264	277	325	354	397	461	493	408	460	538	622	432	472	577	348	410	523	640	697	723	748
ZZ710	County Cost Group	258	258	271	284	333	363	407	473	506	417	472	546	637	443	484	587	354	420	537	657	709	736	766
ZZ720	County Cost Group	227	237	277	291	341	372	417	484	514	427	483	559	652	450	497	602	353	431	550	674	728	755	767

Q-11

\*Shaded rates represent an increase to 1992 HA rates.

Table Q-1 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
ZZ730	County Cost Group	308	308	308	308	381	427	492	527	437	437	495	572	662	460	505	616	372	442	564	685	746	774	891
ZZ740	County Cost Group	302	302	306	306	357	390	440	504	539	446	506	589	678	471	522	631	381	453	577	702	758	786	822
ZZ750	County Cost Group	304	304	313	368	399	453	519	552	456	517	562	602	698	482	534	646	390	463	591	719	776	805	842
ZZ760	County Cost Group	396	396	396	396	466	466	466	530	564	468	533	615	713	496	547	660	466	474	604	736	745	824	863
ZZ770	County Cost Group	264	267	313	330	365	419	473	542	577	478	544	627	729	507	559	675	411	485	618	753	813	843	884
ZZ780	County Cost Group	244	275	323	339	396	431	486	554	594	491	559	645	744	521	576	689	420	499	636	769	831	862	904
ZZ790	County Cost Group	250	292	300	349	407	443	496	569	606	503	570	657	774	532	582	709	433	514	650	792	855	881	920
ZZ800	County Cost Group	415	415	415	415	488	488	509	580	619	516	586	674	779	546	605	724	488	524	668	809	874	900	936
ZZ810	County Cost Group	264	297	348	368	426	464	522	596	636	529	601	692	800	560	621	743	457	539	681	832	892	915	951
ZZ820	County Cost Group	420	420	420	420	495	495	535	607	648	542	616	704	800	575	638	763	495	553	699	848	910	938	974
ZZ830	County Cost Group	447	447	447	447	526	526	548	623	665	557	631	722	835	589	659	777	526	567	718	871	935	957	1000
ZZ840	County Cost Group	458	458	458	458	539	539	561	638	682	574	651	739	856	610	675	797	539	585	736	894	953	982	1020
ZZ850	County Cost Group	469	469	469	469	552	552	578	653	694	586	665	756	876	617	692	816	552	603	754	916	977	1001	1044
ZZ860	County Cost Group	444	444	444	444	522	529	591	669	711	599	681	773	897	632	713	836	522	618	772	939	996	1026	1064
ZZ870	County Cost Group	491	491	491	491	577	577	604	684	728	615	700	790	917	650	729	856	577	632	794	961	1020	1045	1111
ZZ880	County Cost Group	436	436	436	444	513	556	620	700	744	631	715	807	937	667	750	880	547	650	813	984	1044	1071	1132
ZZ890	County Cost Group	513	513	513	513	603	603	637	715	761	647	734	828	963	682	771	900	603	668	831	1012	1069	1090	1159

Q-12

\*Shaded rates represent an increase to 1992 HA rates



	C1	C2	C3	C4	C5	C6	C7
1	100	100	100	100	100	100	100
2	100	100	100	100	100	100	100
3	100	100	100	100	100	100	100
4	100	100	100	100	100	100	100
5	100	100	100	100	100	100	100
6	100	100	100	100	100	100	100
7	100	100	100	100	100	100	100
8	100	100	100	100	100	100	100
9	100	100	100	100	100	100	100
10	100	100	100	100	100	100	100
11	100	100	100	100	100	100	100
12	100	100	100	100	100	100	100
13	100	100	100	100	100	100	100
14	100	100	100	100	100	100	100
15	100	100	100	100	100	100	100
16	100	100	100	100	100	100	100
17	100	100	100	100	100	100	100
18	100	100	100	100	100	100	100
19	100	100	100	100	100	100	100
20	100	100	100	100	100	100	100
21	100	100	100	100	100	100	100
22	100	100	100	100	100	100	100
23	100	100	100	100	100	100	100
24	100	100	100	100	100	100	100
25	100	100	100	100	100	100	100
26	100	100	100	100	100	100	100
27	100	100	100	100	100	100	100
28	100	100	100	100	100	100	100
29	100	100	100	100	100	100	100
30	100	100	100	100	100	100	100
31	100	100	100	100	100	100	100
32	100	100	100	100	100	100	100
33	100	100	100	100	100	100	100
34	100	100	100	100	100	100	100
35	100	100	100	100	100	100	100
36	100	100	100	100	100	100	100
37	100	100	100	100	100	100	100
38	100	100	100	100	100	100	100
39	100	100	100	100	100	100	100
40	100	100	100	100	100	100	100
41	100	100	100	100	100	100	100
42	100	100	100	100	100	100	100
43	100	100	100	100	100	100	100
44	100	100	100	100	100	100	100
45	100	100	100	100	100	100	100
46	100	100	100	100	100	100	100
47	100	100	100	100	100	100	100
48	100	100	100	100	100	100	100
49	100	100	100	100	100	100	100
50	100	100	100	100	100	100	100
51	100	100	100	100	100	100	100
52	100	100	100	100	100	100	100
53	100	100	100	100	100	100	100
54	100	100	100	100	100	100	100
55	100	100	100	100	100	100	100
56	100	100	100	100	100	100	100
57	100	100	100	100	100	100	100
58	100	100	100	100	100	100	100
59	100	100	100	100	100	100	100
60	100	100	100	100	100	100	100
61	100	100	100	100	100	100	100
62	100	100	100	100	100	100	100
63	100	100	100	100	100	100	100
64	100	100	100	100	100	100	100
65	100	100	100	100	100	100	100
66	100	100	100	100	100	100	100
67	100	100	100	100	100	100	100
68	100	100	100	100	100	100	100
69	100	100	100	100	100	100	100
70	100	100	100	100	100	100	100
71	100	100	100	100	100	100	100
72	100	100	100	100	100	100	100
73	100	100	100	100	100	100	100
74	100	100	100	100	100	100	100
75	100	100	100	100	100	100	100
76	100	100	100	100	100	100	100
77	100	100	100	100	100	100	100
78	100	100	100	100	100	100	100
79	100	100	100	100	100	100	100
80	100	100	100	100	100	100	100
81	100	100	100	100	100	100	100
82	100	100	100	100	100	100	100
83	100	100	100	100	100	100	100
84	100	100	100	100	100	100	100
85	100	100	100	100	100	100	100
86	100	100	100	100	100	100	100
87	100	100	100	100	100	100	100
88	100	100	100	100	100	100	100
89	100	100	100	100	100	100	100
90	100	100	100	100	100	100	100
91	100	100	100	100	100	100	100
92	100	100	100	100	100	100	100
93	100	100	100	100	100	100	100
94	100	100	100	100	100	100	100
95	100	100	100	100	100	100	100
96	100	100	100	100	100	100	100
97	100	100	100	100	100	100	100
98	100	100	100	100	100	100	100
99	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100

Q-13

\*Shaded rates represent an increase to 1992 HA rates

Table Q-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
CA030	Beale AFB CA	362	242	342	282	354	380	475	528	568	425	496	554	666	436	499	614	319	405	557	658	718	735	735
CA 4	Beale AFB CA	337	337	337	355	411	443	514	593	639	499	574	638	755	505	577	709	406	470	630	731	820	872	872
CA 45	Beale AFB CA	298	248	328	346	411	446	509	555	643	551	633	742	500	558	679	401	477	603	751	780	813	813	813
CA 46	Beale AFB CA	394	394	395	415	477	506	576	639	670	550	641	701	807	562	628	719	472	544	671	825	804	865	865
CA031	Beale AFB CA	528	528	528	528	622	612	652	750	775	758	812	920	1018	742	804	953	670	740	890	1082	1133	1177	1200
CA032	Beale AFB CA	430	431	433	433	510	510	552	634	658	638	679	760	867	627	710	840	546	614	756	952	1017	1080	1112
CA 47	Beale AFB CA	394	314	431	442	497	529	623	711	768	651	792	821	963	667	754	884	561	634	784	997	967	1064	1064
CA 48	Beale AFB CA	354	354	354	354	416	424	481	576	634	514	567	663	744	541	588	700	442	522	636	797	837	855	871
CA033	Beale AFB CA	373	373	373	373	406	406	443	529	642	549	598	681	774	558	600	696	468	554	655	750	808	852	907
CA034	Beale AFB CA	559	559	559	559	657	657	723	776	824	761	867	942	1078	778	885	994	689	764	916	1126	1132	1202	1202
CA035	Beale AFB CA	412	412	412	412	484	484	567	603	684	557	621	737	515	558	672	484	486	591	763	791	800	860	860
CA036	Beale AFB CA	343	343	343	343	403	403	442	512	548	466	526	594	699	491	542	644	403	478	606	705	748	753	768
CA037	Beale AFB CA	236	236	236	236	290	290	349	375	417	492	424	468	527	622	468	503	378	457	568	628	647	680	689
CA038	Beale AFB CA	272	272	272	272	330	330	320	348	402	442	375	432	448	548	408	438	320	377	486	564	619	632	689
CA039	Beale AFB CA	310	310	310	310	364	364	408	476	508	407	452	498	600	446	481	557	364	425	517	608	642	647	681
CA040	Beale AFB CA	218	218	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	681
CA041	Beale AFB CA	423	423	423	423	498	498	551	605	642	556	613	710	828	569	655	757	498	548	680	846	933	934	934
CA042	Beale AFB CA	424	424	424	424	499	499	531	565	652	705	624	684	795	528	642	739	551	639	776	941	995	1008	1010
CA043	Beale AFB CA	502	502	502	502	590	590	590	670	732	726	816	918	1077	752	863	977	638	750	904	1081	1145	1163	1163
CA044	Beale AFB CA	519	519	519	519	611	611	636	709	771	703	781	853	954	676	774	882	618	684	825	962	987	990	1014
CA045	Beale AFB CA	304	304	304	318	358	363	426	528	587	463	508	569	675	462	510	609	392	441	555	678	712	713	713
CA046	Beale AFB CA	303	303	303	303	356	375	423	521	576	466	515	577	686	472	523	615	384	439	558	696	722	722	722
CA047	Beale AFB CA	192	210	259	277	312	332	373	443	463	387	427	496	596	400	459	547	341	386	507	644	677	733	733
CA048	Beale AFB CA	253	253	256	256	312	352	394	465	514	410	477	542	628	442	493	575	343	433	539	662	702	716	716
CA049	Beale AFB CA	269	269	304	314	354	388	433	510	547	459	532	587	665	491	530	649	405	476	580	725	760	780	780
CA050	Beale AFB CA	277	277	295	315	344	374	425	492	551	450	484	567	654	438	511	610	366	451	586	709	762	771	771
CA051	Beale AFB CA	351	351	378	397	426	452	473	583	633	571	628	712	852	580	647	784	503	569	722	868	1020	1021	1021
CA052	Beale AFB CA	365	365	420	422	462	503	558	643	685	624	682	769	899	632	704	832	559	642	772	950	983	1011	1011
CA053	Beale AFB CA	305	305	334	333	380	411	462	534	577	492	515	608	721	476	560	671	412	503	610	733	824	825	825
CA054	Beale AFB CA	200	200	234	252	294	314	362	449	450	377	413	485	584	360	447	555	322	392	518	616	632	731	731
CA055	Beale AFB CA	212	232	249	257	296	306	355	412	425	355	407	467	553	340	415	512	317	359	479	564	632	751	751
CA056	Beale AFB CA	248	248	266	278	320	344	388	472	497	428	472	543	659	448	499	616	368	451	563	677	746	772	772
CA057	Beale AFB CA	296	296	307	326	366	394	438	526	566	480	521	612	736	459	549	665	411	448	619	755	827	845	845
CA058	Beale AFB CA	310	310	367	386	415	464	490	586	635	561	612	690	820	573	631	751	494	579	704	857	905	922	940

Q-14

\*Shaded rates represent an increase to 1992 HIA rates.

Table Q-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O1	O2	O3	O4	O5	O6	O7
FL068	Altus FL	227	227	274	327	348	376	466	519	427	470	544	633	437	497	587	348	430	538	677	717	719	719
FL069	Key West FL	422	437	124	537	544	614	645	731	775	715	780	860	980	723	811	926	660	729	893	1001	1035	1061
FL070	Volusia County, FL	289	289	189	292	340	367	404	478	538	430	472	540	617	438	489	577	353	430	522	663	698	699
FL338	Avon Park Sebring, FL	193	203	243	252	311	328	392	460	511	409	446	527	629	396	472	581	327	401	525	666	725	735
FL397	Polk County, FL	235	235	235	260	286	328	372	448	507	394	428	506	602	378	455	557	312	384	497	637	700	718
GA071	Alachua GA	338	336	341	342	395	406	454	519	538	487	507	597	696	484	521	618	415	496	586	701	762	742
GA072	Albany GA	180	190	234	238	274	297	328	384	418	321	380	428	509	357	415	488	302	359	452	564	609	632
GA073	Fort Gordon GA	218	218	258	271	313	333	350	439	464	374	424	490	574	412	443	510	362	394	493	572	651	704
GA074	Kings Bay Brunswick GA	198	222	268	283	331	369	402	485	504	412	490	548	649	472	521	587	392	449	556	673	746	746
GA075	Fort Benning, GA	187	208	255	261	294	312	345	427	472	385	423	482	569	387	432	515	354	379	467	575	641	651
GA076	Robins AFB GA	221	221	241	255	286	316	344	391	455	360	390	454	540	366	415	497	302	359	452	564	609	632
GA077	Savannah GA	224	236	294	287	338	357	399	470	495	392	431	530	611	469	505	570	404	446	513	650	693	698
GA078	Atlanta GA	218	218	252	262	290	337	397	461	480	425	483	535	634	435	467	586	326	433	535	658	696	721
GA079	Dalhousie GA	185	209	244	261	301	333	371	443	473	385	417	490	577	404	434	531	307	388	477	587	621	632
GA080	Fort Stewart GA	194	213	263	278	307	332	364	444	472	369	403	466	562	409	461	520	376	404	489	610	650	655
GA081	Moody AFB GA	169	190	234	238	274	317	349	413	455	344	396	452	532	371	415	490	302	359	452	564	609	632
HI408	Honolulu County HI	534	534	581	587	632	679	735	872	889	747	838	948	1034	796	885	1046	733	825	946	1137	1119	1125
HI409	Hawaii County, HI	424	424	424	433	499	499	555	659	706	603	663	773	843	631	691	837	560	644	764	923	923	924
IA082	Des Moines IA	275	275	275	275	328	345	389	473	497	404	459	525	617	432	474	569	345	414	541	623	668	668
IA083	Ames IA	245	245	245	245	288	297	335	419	449	350	401	464	543	372	415	499	302	359	452	564	609	632
ID084	Boise ID	313	313	313	313	368	368	385	446	476	373	427	511	605	412	456	552	368	386	500	626	669	690
ID085	Idaho Falls ID	278	276	276	276	324	324	332	407	442	335	394	457	550	368	415	501	324	359	460	567	616	632
ID086	Mountain Home AFB ID	238	238	238	238	280	297	328	391	427	318	380	428	511	357	415	488	302	359	452	564	609	632
ID087	Pocatello ID	250	250	250	250	294	297	328	384	418	318	380	428	511	357	415	488	302	359	452	564	609	632
ID333	Moscow ID Pullman WA	258	258	258	258	303	303	342	409	459	338	391	458	546	378	415	503	359	452	571	628	643	643
IL086	Champaign IL	251	251	251	251	296	297	328	384	418	347	389	451	546	375	415	508	302	359	454	564	617	634
IL089	Rock Island IL	288	288	288	288	339	339	339	410	449	339	383	438	533	365	415	493	339	359	452	564	609	632
IL090	Peoria IL	308	308	308	308	363	363	363	417	457	366	406	473	569	391	426	523	363	365	476	572	631	652
IL092	Great Lakes NAVTRACEN IL	411	411	411	411	484	484	484	552	603	576	631	717	783	590	647	749	507	602	707	869	1024	1024
IL093	Scott AFB IL	279	279	281	281	335	353	393	490	476	446	490	564	671	476	512	652	381	433	549	697	736	744
IL325	Chicago IL	400	400	400	400	471	476	508	572	630	563	609	683	780	510	634	750	480	571	693	872	935	935
IL335	Spring and Decatur IL	265	265	265	265	313	314	362	434	468	392	424	499	615	415	449	564	321	379	509	634	678	678
IL363	Winnebago IL	261	261	261	261	307	326	362	438	501	393	430	511	567	430	452	546	322	401	498	632	661	661
IL366	Joint Army Depot IL	378	378	378	378	445	445	445	497	546	445	470	547	615	456	490	594	445	445	537	632	632	632
IN094	Indianapolis Ft Harrison IN	277	277	277	277	328	344	394	443	500	414	471	524	635	444	467	556	367	422	517	631	694	694

Q-15

\*Shaded rates represent an increase to 1992 HA rates.

Table Q-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	Q1E	Q2E	Q3E	Q1	Q2	Q3	Q4	Q5	Q6	Q7
IN095	Grisson AFB, IN	211	211	234	238	274	297	337	384	431	318	380	428	509	357	415	488	302	359	452	564	609	632	689
IN096	Lafayette, IN	253	253	253	271	314	334	380	454	498	365	422	474	571	400	429	528	311	370	462	564	612	632	689
IN097	Fort Wayne, IN	232	232	258	263	324	335	375	449	485	405	485	519	625	436	472	574	355	416	524	639	680	690	690
IN099	South Bend, IN	232	232	234	238	274	297	328	392	447	346	397	459	529	385	415	496	302	359	452	572	618	654	689
IN337	Evansville, IN	230	230	234	238	274	297	337	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
IN338	Terre Haute, IN	201	201	234	238	274	297	328	384	418	347	387	452	525	372	415	492	302	359	452	564	610	632	689
IN367	Gary, IN	293	293	293	293	345	347	378	455	511	402	452	518	597	441	473	566	345	416	516	634	681	732	735
IN399	Bloomington, IN	230	230	266	272	321	334	387	445	482	390	431	503	567	412	454	540	336	395	477	606	647	656	689
KS100	Fort Riley, KS	208	208	234	238	274	297	342	398	435	368	415	470	572	367	415	496	318	359	452	564	609	632	689
KS101	Wichita McConnell AFB, KS	268	268	268	272	316	329	391	426	460	436	487	569	676	455	496	606	368	444	589	710	735	759	759
KS102	Fort Leavenworth, KS	245	245	248	253	297	332	373	436	470	384	441	507	616	405	450	564	335	392	501	586	626	644	689
KS104	Lawrence, KS	280	280	281	281	330	367	407	477	500	431	486	558	666	447	491	602	384	439	550	643	687	703	708
KS105	Topeka, KS	242	242	245	259	290	308	349	425	448	389	435	505	607	398	436	542	340	392	498	583	624	632	689
KY106	Fort Campbell, KY	249	248	248	248	292	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
KY107	Lexington, KY	253	253	253	253	298	326	365	445	477	395	428	494	584	416	456	531	330	390	496	621	658	669	689
KY109	Louisville, KY	206	206	234	238	274	297	328	406	431	387	424	499	589	404	460	534	315	396	495	633	694	700	707
KY110	Fort Knox, KY	194	194	234	238	274	297	328	384	421	318	380	428	509	357	415	488	302	359	452	564	609	632	689
LA113	England AFB, LA	202	202	234	238	274	297	328	398	437	335	330	446	554	376	415	494	312	359	452	569	620	635	689
LA114	Baton Rouge, LA	272	272	272	275	319	343	380	461	496	383	435	503	578	401	445	545	332	397	491	606	662	677	689
LA115	Fort Polk, LA	169	190	234	238	274	297	341	395	451	318	380	428	517	357	415	488	302	359	452	564	609	632	689
LA116	New Orleans, LA	299	299	299	299	352	352	388	456	462	406	463	546	596	412	470	560	342	412	499	607	676	721	721
LA117	Shreveport Bossard AFB, LA	240	240	246	259	297	313	347	397	435	370	421	493	595	402	432	557	328	400	504	595	647	678	689
LA118	Lafayette, LA	250	250	252	252	294	318	393	447	489	366	422	494	593	405	436	550	333	392	495	630	680	712	715
LA326	St Mary and Terrebonne, LA	221	221	234	239	286	305	354	431	457	356	401	463	536	366	415	506	302	360	455	564	619	612	689
LA370	Lake Charles, LA	209	210	245	273	302	316	375	444	493	377	427	501	612	411	441	557	349	405	519	640	681	707	717
LA371	Monroe, LA	186	190	234	245	278	303	355	416	451	360	418	485	593	396	426	537	311	383	492	607	655	677	689
MA120	Boston, MA	571	571	571	571	672	672	672	691	745	736	799	931	1073	745	863	1010	672	716	920	1176	1233	1234	1234
MA121	Cape Cod, MA	509	509	509	509	599	599	599	607	645	599	599	665	761	599	602	709	599	599	640	782	826	830	839
MA122	Worcester, MA	571	571	571	571	672	672	672	672	695	672	672	672	780	901	872	715	845	672	764	941	1002	1005	1027
MA123	Fort Devens, MA	571	571	571	571	672	672	672	672	694	672	687	794	916	872	737	871	672	672	768	940	1048	1048	1048
MA124	Brockton, MA	571	571	571	571	672	672	672	672	751	770	714	771	895	1023	727	824	964	672	729	906	1043	1114	1114
MA125	Essex Co, MA	571	571	571	571	672	672	672	672	709	672	677	789	903	672	727	847	672	672	775	946	997	938	1006
MA126	Hampden County, MA	397	397	397	397	487	487	487	515	586	536	555	663	781	522	597	707	487	508	623	807	850	869	871
MA377	Hanscomb AFB, MA	533	533	533	533	627	627	655	748	788	676	727	848	967	686	794	915	627	679	838	1013	1081	1081	1081
MD127	Aberdeen Proving Grounds	334	334	334	334	383	393	450	492	593	491	547	612	724	493	546	653	420	466	588	703	737	758	758

Table Q-2 Continued

IANA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
MD128	Annapolis, MD	332	357	431	455	488	505	580	696	743	622	676	751	673	624	692	796	544	605	730	910	901	916	916
MD129	Baltimore, MD	332	332	376	397	448	476	519	624	666	612	679	724	858	615	680	781	526	593	721	855	880	906	906
MD130	Fort Detrick, MD	519	519	519	519	611	611	611	611	650	611	611	656	760	611	611	706	611	611	632	756	784	811	811
MD131	Fort Ritchie, MD	263	263	263	275	309	342	424	496	561	404	456	512	611	410	461	548	336	382	511	606	649	650	689
MD133	Fort G. Meade, MD	339	363	429	471	509	521	578	666	713	631	685	759	872	625	699	796	560	626	761	872	876	904	904
MD134	Indian Head NAVORDSTA, MD	519	519	519	519	611	611	611	684	739	611	637	699	807	611	648	724	611	611	684	804	810	834	834
MD135	Paluxent River, MD	371	371	388	401	450	486	523	600	664	578	642	696	820	606	660	761	518	581	698	817	853	867	867
ME136	Brunswick, ME	352	352	352	364	414	433	492	537	601	527	597	652	771	542	619	709	457	553	623	784	818	830	830
ME137	Loring AFB, ME	267	267	267	267	314	333	370	448	489	347	395	456	543	377	415	512	314	359	452	577	612	632	632
ME139	Portland, ME	437	437	437	437	514	514	514	587	612	541	537	680	801	556	625	736	514	559	659	837	877	884	884
ME140	Bar Harbor, ME	274	274	274	274	316	348	400	467	505	432	502	556	655	450	511	608	274	447	555	673	709	713	713
ME390	Bangor, ME	293	293	294	308	360	371	429	504	546	462	531	587	688	479	542	638	404	478	586	712	742	748	748
MI142	Detroit, MI	292	292	305	293	344	360	387	481	545	534	599	693	817	554	625	764	456	543	677	906	922	936	950
MI143	Ki Sawyer AFB, MI	243	243	243	243	286	318	390	445	493	374	428	496	593	404	444	543	307	369	497	603	665	676	683
MI145	Sault Ste Marie, MI	178	190	234	238	274	297	328	396	444	319	380	430	518	357	415	488	302	359	452	564	609	632	649
MI146	Traverse City, MI	245	245	288	321	351	380	427	509	551	465	528	595	699	499	538	643	404	478	592	730	789	790	803
MI148	Muskegon, MI	235	235	235	250	287	311	362	440	493	391	445	515	594	421	454	552	328	401	504	637	685	710	710
MI149	Port Huron, MI	292	292	292	292	344	346	394	469	526	435	489	565	678	457	508	615	366	437	556	697	743	765	785
MI150	Wurtsmith AFB, MI	205	205	234	241	274	329	338	420	463	328	380	433	522	361	415	488	302	359	452	564	609	632	649
MI152	Balke Creek/Kalamazoo, MI	231	231	241	256	299	329	372	446	486	409	473	540	663	436	476	585	342	416	535	650	713	734	762
MI153	Lansing, MI	273	273	273	273	321	343	373	458	493	388	437	507	610	408	447	535	327	393	494	610	655	667	689
MI154	Grand Rapids, MI	275	275	275	278	336	367	409	477	519	436	496	566	670	467	503	612	375	451	564	693	747	771	777
MI155	Ann Arbor, MI	356	356	375	388	430	450	496	593	628	531	586	669	782	547	606	706	467	546	670	781	843	852	852
MI156	Saginaw, MI	242	242	242	245	295	311	367	440	476	396	443	514	613	420	453	548	330	397	501	628	669	679	689
MI341	Flint, MI	237	237	260	268	310	340	385	465	508	422	474	551	655	447	488	590	354	424	538	672	716	730	742
MI158	Duluth, MN	246	246	246	245	289	297	329	410	458	360	418	478	579	389	419	525	302	364	474	602	646	660	689
MI159	Minneapolis/St. Paul, MN	367	367	367	367	432	433	481	566	588	564	582	657	786	554	607	715	463	549	646	837	858	859	853
MO160	Kansas City, MO	245	245	276	286	316	348	423	470	489	422	484	551	666	453	506	604	374	436	550	654	714	718	723
MO161	St. Louis, MO	279	279	303	293	337	367	405	473	501	448	500	564	667	477	512	631	388	442	607	672	709	734	794
MO162	Whiteman AFB, MO	188	190	234	238	274	297	334	412	440	318	360	435	517	357	415	488	302	359	452	564	609	632	649
MO163	Fort Leonard Wood, MO	170	190	234	238	274	297	328	399	433	318	360	428	509	357	415	488	302	359	452	564	609	632	649
MO164	Springfield, MO	200	200	234	238	276	307	351	421	461	348	401	469	554	382	426	509	302	360	458	569	611	612	647
MO165	Columbia/Jefferson City, MO	208	208	234	238	274	309	341	421	448	339	396	461	550	379	415	505	302	359	453	564	609	632	649
MS166	Gulfport, MS	204	204	234	238	274	297	332	400	434	337	397	468	537	357	415	488	302	359	452	564	617	632	647
MS169	Columbus AFB, MS	206	206	234	238	274	308	337	398	452	363	394	454	535	359	416	492	302	359	452	564	618	632	647

Q-17

\*Shaded rates represent an increase to 1992 HA rates

Table Q-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
MS170	Jackson, MS	266	266	266	266	314	325	359	433	475	376	409	468	563	382	424	510	314	365	463	564	619	632	689
MS171	Meridian, MS	181	190	234	238	274	297	339	407	455	344	380	438	530	357	415	488	302	359	452	564	509	632	689
MS172	Hattiesburg, MS	182	190	234	238	274	297	328	384	418	310	380	428	509	357	415	488	302	359	452	564	609	632	689
MT175	Malmstrom AFB, Great Falls, MT	259	258	259	259	305	305	344	405	442	318	380	428	509	357	415	488	305	359	452	564	609	632	689
NC177	Morehead Army Pk, MCAS, NC	209	209	245	262	297	319	347	427	428	396	409	455	569	402	432	501	336	385	479	605	619	638	689
NC178	Camp Lejeune, NC	194	200	244	257	291	316	349	396	418	412	425	494	593	404	434	495	363	428	498	582	652	652	689
NC179	Charlotte, NC	238	238	260	275	339	341	352	435	494	408	436	494	597	424	455	541	355	423	505	612	654	677	689
NC180	Durham/Chapel Hill, NC	266	266	279	293	331	356	392	457	503	456	485	559	670	471	515	600	403	470	563	671	729	740	740
NC181	Elizabeth City, NC	193	207	249	266	305	325	369	438	482	415	456	506	597	447	486	552	342	404	507	624	659	667	689
NC182	Fort Bragg/Pope AFB, NC	222	222	262	268	307	326	351	427	455	413	417	469	588	401	431	499	352	399	469	564	609	632	689
NC183	Seymour Johnson AFB, NC	178	200	246	260	298	334	363	408	441	408	421	480	582	416	447	511	353	416	491	567	634	634	689
NC184	Greensboro, NC	228	228	267	270	295	318	398	450	492	441	475	546	656	459	493	586	383	448	563	665	728	752	757
NC185	Raleigh, NC	167	278	335	347	414	406	472	522	563	493	514	581	698	511	549	631	444	509	594	690	753	754	754
NC186	Wilmington, NC	225	225	267	272	317	335	371	446	471	458	472	537	650	468	509	531	400	463	565	660	709	732	732
ND188	Bismarck, ND	253	253	253	253	298	298	329	384	418	322	380	434	518	357	415	488	302	359	452	564	609	632	689
ND189	Fargo, ND	253	253	253	253	320	320	369	445	489	368	440	505	594	401	451	549	326	389	492	616	656	661	689
ND190	Grand Forks, ND	234	234	234	238	276	297	330	400	429	367	421	488	580	387	432	535	303	359	452	618	653	671	689
ND191	Minot AFB, ND	203	203	234	256	274	297	328	384	418	318	380	432	521	357	415	488	302	359	452	564	609	632	689
NE192	Omaha/Offutt AFB, NE	240	240	264	288	340	375	425	488	496	411	470	532	628	427	466	587	339	423	550	633	660	667	689
NE193	Lincoln, NE	251	251	251	251	307	336	382	436	492	366	415	474	572	377	428	524	305	369	486	576	609	632	689
NH194	Portsmouth, NH/Kittery, ME	438	438	438	438	515	515	515	590	632	521	574	664	775	531	600	706	515	517	643	834	869	870	871
NH195	Manchester/Concord, NH	462	462	462	462	544	544	544	610	647	557	601	709	822	569	647	768	544	564	679	879	921	922	929
NJ196	Atlantic City, NJ	375	375	392	395	441	476	525	605	653	551	600	671	780	576	605	686	482	524	658	796	814	796	796
NJ198	Cape May, NJ	374	374	374	374	440	440	514	566	624	498	533	596	706	496	542	636	440	465	591	701	731	732	732
NJ200	Fort Monmouth/Earl's NWS, NJ	456	456	456	456	536	536	623	682	734	694	773	846	938	715	785	913	616	684	848	1000	1045	1049	1049
NJ201	Perth Amboy, NJ	516	516	516	516	607	607	607	674	716	691	768	842	989	709	789	915	614	698	857	1003	1071	1072	1072
NJ202	Northern New Jersey	457	457	457	457	538	538	540	644	694	638	708	784	928	661	724	843	555	631	756	938	993	993	993
NJ203	Trenton, NJ	454	454	454	454	534	534	574	653	700	616	673	754	891	634	700	815	539	624	761	895	944	944	944
NJ204	Fort Dix/McGuire/Lakehurst, NJ	372	372	372	372	437	437	477	619	638	541	598	673	800	561	605	715	464	528	660	782	833	834	834
NM205	Holloman AFB/Alamogordo, NM	227	227	234	238	274	297	328	406	425	319	380	441	538	357	415	488	302	359	452	564	609	632	689
NM206	Abuquerque/Kirtland AFB, NM	312	312	312	312	367	371	419	480	551	418	453	516	606	429	47	552	307	383	490	605	664	672	689
NM207	Cannon AFB/Clovis, NM	212	212	234	238	274	297	328	404	447	351	401	469	563	373	41	523	302	359	431	593	638	654	654
NM208	Gallup, NM	313	313	313	313	368	368	368	368	418	368	380	428	509	368	415	488	368	368	452	564	609	632	689
NM209	White Sands MR/Las Cruces, NM	232	232	234	238	274	297	354	410	446	355	408	493	604	380	434	535	331	383	489	616	659	684	700
NM210	Santa Fe/Los Alamos, NM	381	381	381	381	448	448	448	513	557	467	508	572	670	477	525	615	448	451	578	689	724	727	727

Q-18

\*Shaded rates represent an increase to 1992 HA rates.

Table Q-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
NV211	Fallon NAS, NV	337	337	337	337	387	387	431	513	554	460	519	590	702	489	540	651	404	477	590	715	770	774	774
NV212	Nellis AFB/Las Vegas, NV	399	399	399	399	469	469	486	545	589	497	560	630	737	528	568	669	469	493	653	757	861	862	862
NV213	Carson City, NV	489	489	489	489	552	552	552	569	616	552	574	648	765	552	594	706	552	552	659	764	819	830	830
NV215	Ballston Spa/Albany, NY	304	304	323	338	375	425	462	574	596	424	511	595	712	500	552	674	386	479	604	695	766	790	790
NV216	Buffalo, NY	248	248	248	272	292	301	332	441	488	412	457	542	637	436	468	585	344	421	542	565	713	729	729
NV217	West Point, NY	498	409	424	428	481	516	560	684	726	652	728	817	966	689	765	877	583	673	837	948	1031	1036	1036
NV218	Long Island, NY	554	554	554	554	652	652	652	652	715	652	714	800	939	667	753	860	652	662	814	936	984	1003	1003
NV219	New York City, NY	387	397	407	441	500	516	580	632	715	644	714	800	939	667	753	860	575	662	814	936	984	1003	1003
NV220	Plattsburgh, NY	261	261	272	293	345	328	382	486	528	411	470	528	640	446	486	583	356	415	544	656	695	710	715
NV221	Rochester, NY	339	339	339	339	398	398	425	514	550	418	486	586	677	483	519	617	398	451	584	695	738	747	747
NV222	Rome, Griffiss AFB, NY	255	255	263	292	329	356	415	475	551	345	445	541	637	440	473	597	348	406	512	622	655	678	689
NV223	Saratoga Army Dep Syracuse, NY	281	281	281	291	331	340	404	490	547	443	548	652	779	543	583	723	419	500	677	793	847	872	882
NV225	Fort Drum/Watertown, NY	293	293	293	293	345	345	392	450	512	357	438	526	624	430	462	560	355	388	495	611	661	677	689
NV226	Binghamton/Lithaca, NY	277	277	279	287	339	372	438	481	531	407	497	588	691	494	531	636	387	457	581	694	737	749	749
NV349	Westchester County, NY	465	465	472	477	547	571	637	744	793	752	826	925	1091	784	872	1001	672	775	978	1108	1178	1213	1216
NV395	Jameson, NY	240	240	240	240	282	305	347	426	473	371	413	491	581	399	431	531	302	379	484	613	648	660	689
OH227	Akron, OH	236	236	257	278	316	343	369	452	512	424	486	539	645	447	502	587	360	435	530	677	733	754	754
OH228	Cincinnati, OH	261	261	261	261	341	351	413	467	490	384	413	471	553	405	448	511	331	386	474	566	631	632	663
OH229	Cleveland, OH	261	261	303	304	340	368	411	532	575	483	545	613	733	502	569	670	421	498	603	772	833	866	866
OH230	Columbus, OH	249	249	263	260	317	348	387	468	496	408	452	516	624	429	472	561	348	401	537	648	715	715	715
OH231	Wright Patterson AFB, OH	223	226	271	276	329	340	382	483	496	412	451	518	624	444	478	578	362	411	525	649	679	705	705
OH232	Toledo, OH	274	274	274	274	323	323	363	449	498	404	452	526	628	422	471	563	339	407	509	651	637	708	708
OH233	Youngstown, OH	228	228	234	238	274	297	331	396	455	347	389	455	560	359	415	505	302	359	458	585	645	665	665
OH382	Marsfield, OH	197	197	234	238	274	297	331	396	455	347	389	455	560	359	415	505	302	359	458	585	645	665	665
OK235	Altus AFB, OK	163	190	234	238	274	297	328	384	418	334	385	442	523	357	415	488	307	359	452	564	609	632	632
OK236	Vance AFB/End, OK	252	252	252	252	296	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	632
OK237	Fort Sill/Lawton, OK	206	206	234	238	274	297	328	384	418	333	380	434	518	357	415	488	302	359	452	564	609	632	632
OK239	Oklahoma City, OK	229	229	234	255	289	306	358	400	418	338	383	454	533	362	415	493	302	359	456	564	609	632	632
OK240	Tulsa, OK	279	279	279	279	328	328	357	415	461	362	393	469	555	383	421	511	328	365	458	572	615	632	632
OR241	Astoria, OR	280	290	290	290	341	341	357	436	481	391	465	518	597	418	476	564	341	400	524	639	672	673	689
OR242	Coos Bay, OR	318	318	318	318	374	374	382	442	483	374	416	484	582	383	432	542	374	374	486	590	641	643	689
OR243	Portland, OR	285	285	285	299	347	362	440	492	519	429	494	549	633	452	508	584	370	445	544	660	727	727	727
OR244	Salem, OR	311	311	311	311	366	366	393	463	494	404	456	506	598	425	481	561	368	414	512	617	659	667	689
OR245	Corvallis, OR	302	302	302	302	355	355	402	471	505	375	427	476	566	391	446	531	355	384	468	586	626	632	689
OR246	Eugene, OR	339	339	339	339	398	398	398	442	477	398	440	501	595	404	461	556	348	398	503	616	656	678	689

Q-19

\*Shaded rates represent an increase to 1992 HA rates.

Table Q-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	Q1E	Q2E	Q3E	Q1	Q2	Q3	Q4	Q5	Q6	Q7
PA237	Carlisle Barracks, PA	318	316	318	318	372	372	401	484	562	424	474	530	641	426	483	550	372	407	526	657	662	671	689
PA248	Philadelphia, PA/Camden, NJ	362	362	363	365	426	445	521	627	677	606	649	731	867	608	661	772	503	563	752	877	895	926	926
PA249	NAS Willow Grove, PA	380	380	411	433	486	516	571	692	732	668	721	802	946	671	731	895	570	648	816	946	1016	1017	1017
PA250	Pittsburgh, PA	240	240	240	252	306	316	368	401	482	401	451	500	597	433	466	525	343	409	507	605	669	674	689
PA251	Reading, PA	300	300	300	303	359	392	428	529	597	506	550	620	734	511	556	664	417	484	607	742	769	769	769
PA252	State College, PA	354	354	354	354	416	416	416	483	534	421	475	540	631	452	485	589	416	434	530	659	690	696	696
PA253	Erie, PA	307	307	307	307	361	361	361	416	474	376	420	490	581	400	446	538	361	388	488	613	667	682	689
PA254	Wilkes Barre-Scranton, PA	229	229	234	228	274	297	328	424	490	386	450	511	625	415	455	565	309	380	504	632	669	670	683
PA255	Allentown/Bethlehem, PA	291	291	331	336	377	424	493	567	621	533	588	664	795	550	607	723	453	531	666	810	851	854	854
PA380	Letterkenny Army Depot, PA	266	266	266	266	313	314	375	457	520	394	442	504	604	401	448	540	323	375	489	600	619	632	685
PA383	Johnstown, PA	247	247	247	247	290	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
RI256	Newport, RI	447	447	447	447	526	526	593	645	702	576	627	736	838	567	670	795	526	576	686	878	920	921	922
RI257	Providence, RI	403	403	403	403	474	474	507	552	620	530	599	686	794	541	628	733	474	523	640	823	880	887	904
SC258	Beaufort/Parris Island, SC	217	234	278	290	325	346	397	457	485	381	430	479	571	439	472	513	374	430	489	609	654	657	689
SC259	Charleston, SC	245	245	275	280	321	344	379	467	508	409	477	527	629	485	521	558	393	444	544	689	727	728	751
SC260	Columbia/Fort Jackson, SC	245	245	273	285	321	350	362	471	485	422	478	542	627	464	499	565	383	435	537	639	728	774	774
SC261	Greenville, SC	201	201	234	242	283	310	338	443	470	392	444	505	603	412	443	559	329	403	521	635	696	728	728
SC262	Myrtle Beach AFB, SC	203	229	278	288	317	356	378	455	489	431	449	512	614	459	493	543	374	427	502	639	689	690	690
SC263	Sumter/Chaw AFB, SC	178	199	243	258	294	325	369	423	449	365	403	449	539	392	421	488	317	362	452	578	609	634	689
SD264	Rapid City/Elsworth AFB, SD	218	218	236	251	291	314	334	440	476	381	419	478	577	395	428	529	319	388	475	606	660	663	689
SD265	Sioux Falls, SD	234	234	245	257	309	352	372	453	485	406	459	523	619	434	475	569	344	414	518	647	684	684	689
TN266	Chattanooga, TN	243	243	243	263	294	333	359	438	472	366	431	502	581	412	443	546	327	396	493	589	638	659	689
TN267	Knoxville, TN	216	216	234	238	274	309	328	410	456	357	414	478	564	390	427	521	302	371	484	580	634	650	689
TN268	Memphis, TN	237	237	248	255	297	313	361	428	454	385	451	485	581	406	467	539	326	388	504	574	668	699	699
TN269	Nashville, TN	275	275	275	275	325	353	396	463	471	374	414	492	580	404	434	541	349	403	499	579	646	676	689
TN353	Johnson City/Kingsport, TN	190	190	234	238	274	297	337	403	444	332	381	445	531	368	415	488	302	359	452	564	609	632	689
TN354	Manchester/Tullahoma, TN	183	190	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
TX270	Abilene/Dyess AFB, TX	243	243	243	255	288	317	366	439	462	380	432	501	605	403	444	558	310	366	518	598	684	684	689
TX271	Amarillo, TX	217	217	234	238	274	297	336	412	445	342	391	457	548	366	415	502	302	359	452	569	616	632	689
TX272	Austin/Bergstrom AFB, TX	292	292	292	292	343	370	409	486	500	406	449	530	636	438	471	618	362	421	557	665	715	763	763
TX273	Beaumont, TX	262	262	262	262	309	337	384	440	493	360	402	480	581	407	437	533	329	385	493	597	648	677	689
TX274	College Station, TX	321	321	321	321	378	378	400	476	518	394	436	511	615	423	454	564	378	420	520	649	707	729	729
TX275	Corpus Christi, TX	269	269	269	275	318	360	395	481	516	409	465	547	644	411	486	592	335	391	556	641	727	746	746
TX276	Kingsville, TX	206	207	243	256	312	348	388	458	509	378	434	507	596	383	448	551	308	359	489	652	690	691	691
TX277	Dallas, TX	303	303	326	334	381	407	454	526	561	460	510	582	701	501	539	631	417	493	626	702	751	774	774

Q-20

\*Shaded rates represent an increase to 1992 HA rates.



Table Q-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	Q1E	Q2E	Q3E	Q1	Q2	Q3	Q4	Q5	Q6	Q7
TX278	Laughlin AFB, Del Rio, TX	169	190	234	238	287	320	357	437	475	336	383	443	529	357	415	488	302	359	452	564	614	632	689
TX279	El Paso, TX	218	218	248	252	279	309	352	384	418	343	380	464	594	370	425	522	337	372	464	570	640	704	704
TX280	Garveston, TX	239	240	288	288	335	362	404	500	548	461	523	596	586	504	542	546	396	481	592	726	778	809	809
TX281	Brownsville, TX	221	221	236	249	292	321	380	465	501	383	435	509	600	397	456	555	314	378	494	635	681	698	698
TX282	Houston, TX	249	249	284	311	359	401	429	516	560	439	498	588	655	483	523	612	371	445	571	640	756	785	785
TX283	Lubbock/Reese AFB, TX	208	208	234	238	281	312	349	419	460	387	434	500	593	403	449	551	336	412	498	618	670	678	689
TX284	Goodfellow AFB, TX	245	245	245	245	289	312	339	418	460	370	425	494	594	389	440	555	302	364	510	597	655	673	689
TX285	San Antonio, TX	288	288	288	288	339	343	373	434	464	381	434	539	645	422	453	574	339	387	515	635	657	670	689
TX286	Fort Hood, TX	203	203	234	238	285	314	344	420	454	344	380	449	532	372	415	493	326	373	452	583	609	632	689
TX287	Terakana, TX	193	205	250	264	312	340	372	439	475	400	451	523	617	429	461	565	332	415	524	630	673	676	689
TX288	Wichita Falls/Sheppard AFB, TX	227	227	243	255	294	308	359	420	436	386	437	496	584	397	448	529	328	387	502	564	622	668	689
TX289	Beville, TX	208	206	234	238	274	300	344	430	463	346	396	475	557	375	415	516	302	359	470	593	640	640	689
TX356	Fort Worth, TX	287	287	290	301	349	386	432	483	528	416	469	541	644	450	484	594	384	434	554	683	714	716	716
UT291	Ogden/Hill AFB, UT	230	230	234	242	283	297	348	420	433	337	385	446	524	358	415	488	302	359	452	564	609	632	689
UT292	Salt Lake City, UT	230	230	234	245	295	305	352	413	448	358	410	471	557	382	432	503	302	361	480	564	609	632	689
UT357	Provo, UT	242	242	242	242	285	297	328	384	418	320	380	437	521	357	415	488	302	359	452	564	609	632	689
VA295	Charlottesville, VA	287	287	287	294	338	366	447	514	557	459	518	575	676	459	522	613	391	450	560	664	713	714	714
VA296	Quantico/Woodbridge, VA	516	516	516	516	608	608	608	608	642	608	673	744	844	608	665	770	608	608	709	830	866	889	889
VA297	Hampton/Newport News, VA	303	303	303	308	358	392	440	504	525	472	521	588	656	500	546	627	397	458	588	692	722	728	728
VA298	Norfolk/Portsmouth, VA	303	303	315	334	375	407	453	505	551	511	595	593	703	542	583	658	431	487	613	723	785	810	810
VA300	Petersburg/Fort Lee, VA	255	255	260	283	319	360	400	456	511	419	479	521	616	454	495	564	349	403	501	642	681	688	689
VA301	Richmond, VA	256	256	284	304	346	377	434	495	548	443	504	547	647	475	519	578	371	441	520	675	699	712	712
VA302	Warrenton/Vint Hill Farm, VA	436	436	441	455	513	545	557	681	728	633	678	749	872	627	699	790	563	623	728	869	915	916	916
VA303	Lexington, VA	224	224	234	238	278	309	358	435	474	380	433	493	571	401	441	528	314	376	484	582	635	636	689
VA304	Wallops Island, VA	198	213	252	268	326	349	397	473	514	450	508	558	663	488	529	625	373	437	555	691	719	728	747
VA362	Roanoke, VA	245	245	245	245	288	297	344	409	453	354	407	470	556	380	419	506	302	360	464	571	623	636	689
VA368	Camp A.P. Hill, VA	259	275	328	342	403	413	472	549	596	478	532	589	692	497	545	619	424	468	564	658	727	729	729
VT305	Burlington, VT	378	378	378	378	444	444	472	554	601	497	556	617	739	529	577	677	444	509	629	754	804	817	817
WA306	Bremerton, WA	316	316	316	322	372	418	464	525	604	466	536	603	693	500	569	632	417	497	613	727	709	733	733
WA307	Everett, WA	376	376	376	387	443	474	516	573	628	518	606	663	761	554	618	707	466	554	660	756	800	820	820
WA308	Port Angeles, WA	303	303	303	303	356	356	363	433	484	356	420	485	561	393	434	518	356	382	466	578	609	642	689
WA309	Seattle, WA	376	376	376	376	443	455	491	547	601	532	610	679	796	571	627	726	457	577	720	784	868	889	889
WA310	Spokane, WA	264	264	264	264	311	311	366	414	474	343	392	457	542	377	415	497	311	362	452	564	639	639	689
WA311	Tacoma, WA	293	293	293	293	344	371	413	488	517	441	522	589	656	470	533	627	381	441	565	679	690	737	737
WA312	Whidbey Island, WA	310	310	316	331	385	427	465	543	615	466	538	611	682	502	550	640	419	499	601	694	710	724	724

Q-21

\*Shaded rates represent an increase to 1992 HA rates.

Table Q-2 Continued

MHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
WA313	Yakima, WA	280	280	280	280	330	335	385	448	497	395	461	528	611	423	471	562	334	406	518	624	659	672	689
WA315	Aberdeen, WA	303	303	303	303	356	356	372	440	482	426	483	528	606	391	442	521	356	371	471	576	613	632	689
WI316	Madison, WI	284	284	284	301	357	375	416	491	553	458	500	574	656	484	522	620	389	467	584	693	741	768	768
WI317	Milwaukee, WI	275	275	287	297	338	370	474	540	555	441	487	555	609	459	493	580	373	455	557	662	732	763	763
W318	Sparta/Fort McCoy, WI	222	222	234	241	289	306	349	414	462	341	385	448	531	364	415	488	302	359	452	564	609	632	689
W319	Oshkosh/Appleton, WI	224	224	234	243	295	315	350	428	471	377	422	479	569	395	435	528	309	376	472	595	631	634	689
W3358	Green Bay, WI	221	221	234	238	288	297	354	422	464	365	419	478	571	391	429	526	302	365	468	600	641	642	689
W3359	Stevenspoint, WI	226	226	241	260	310	324	391	459	504	410	467	538	635	438	482	583	342	413	529	653	701	712	722
WV320	Morgantown, WV	246	246	246	246	289	297	328	384	433	322	380	428	509	357	415	488	302	359	452	564	609	632	689
WV321	Sugar Grove, WV	187	190	234	238	274	297	328	384	418	324	380	428	510	357	415	488	302	359	452	564	609	632	689
WV322	Huntington, WV	240	240	240	240	309	320	365	434	480	380	418	482	574	395	441	520	310	379	470	595	627	640	689
WV323	Charleston, WV	308	308	308	308	363	363	363	413	464	386	435	500	590	407	455	533	383	388	493	605	653	659	689
WV360	Beckley, WV	179	190	234	238	274	297	328	388	438	346	397	460	541	372	415	490	302	359	452	564	609	632	689
WY324	Cheyenne, WY	294	294	294	294	346	346	346	409	459	346	383	429	514	383	415	488	302	359	452	564	609	632	689
ZZ530	County Cost Group	169	190	234	238	274	297	328	384	418	318	380	428	509	357	415	488	302	359	452	564	609	632	689
ZZ540	County Cost Group	169	190	234	238	274	297	328	384	418	319	380	428	509	357	415	488	302	359	452	564	609	632	689
ZZ550	County Cost Group	169	190	234	238	274	297	328	384	418	322	380	428	509	357	415	488	302	359	452	564	609	632	689
ZZ560	County Cost Group	169	190	234	238	274	297	328	384	418	325	380	428	509	357	415	488	302	359	452	564	609	632	689
ZZ570	County Cost Group	172	190	234	238	274	297	328	384	418	328	380	428	509	357	415	488	302	359	452	564	609	632	689
ZZ580	County Cost Group	183	190	234	238	274	297	328	384	418	328	380	428	509	357	415	488	302	359	452	564	609	632	689
ZZ590	County Cost Group	194	194	234	238	274	297	328	384	418	335	380	428	509	357	415	488	302	359	452	564	609	632	689
ZZ600	County Cost Group	205	205	234	238	274	297	328	384	418	338	380	431	509	357	415	488	302	359	452	564	609	632	689
ZZ610	County Cost Group	216	216	234	238	274	297	328	384	418	344	380	439	515	364	415	488	302	359	452	564	609	632	689
ZZ620	County Cost Group	227	227	234	238	274	297	328	392	418	351	384	448	525	368	415	494	302	359	452	564	609	632	689
ZZ630	County Cost Group	238	238	238	238	279	301	338	400	426	354	392	461	535	375	415	499	303	359	452	564	609	632	689
ZZ640	County Cost Group	248	248	248	248	292	310	345	408	435	360	400	469	545	382	415	509	309	359	460	566	609	641	689
ZZ650	County Cost Group	259	259	259	259	305	316	355	415	442	366	407	478	561	389	422	519	312	366	469	578	624	653	699
ZZ660	County Cost Group	270	270	270	270	318	321	361	423	452	376	419	490	571	396	430	528	318	377	478	589	636	666	689
ZZ670	County Cost Group	281	281	281	289	341	372	416	465	492	408	476	529	630	453	472	560	358	411	526	660	699	701	698
ZZ680	County Cost Group	292	292	292	292	343	343	381	438	464	389	438	512	596	414	451	553	343	392	500	617	667	691	711
ZZ690	County Cost Group	303	303	303	303	356	356	388	450	481	398	449	525	606	421	459	563	356	402	509	628	679	710	732
ZZ700	County Cost Group	313	313	313	313	369	369	397	461	493	408	460	538	622	432	472	577	369	410	523	640	687	723	746
ZZ710	County Cost Group	324	324	324	324	381	381	407	473	506	417	472	546	637	443	484	587	381	420	537	657	709	736	766
ZZ720	County Cost Group	335	335	335	335	394	394	417	484	514	427	483	559	652	450	497	602	394	431	550	674	728	755	787

Q-22

\*Shaded rates represent an increase to 1992 HA rates.

Table Q-2 Continued

JHA	Location	E1	E2	E3	E4	E5	E6	E7	E8	E9	W1	W2	W3	W4	O1E	O2E	O3E	O1	O2	O3	O4	O5	O6	O7
ZZ730	County Cost Group	346	346	346	346	407	407	427	427	527	437	485	572	662	460	505	616	407	442	564	685	746	774	801
ZZ740	County Cost Group	357	357	357	357	420	420	440	440	539	446	506	589	678	471	522	631	420	453	577	702	758	786	822
ZZ750	County Cost Group	368	368	368	368	432	432	450	450	519	456	517	602	698	482	534	646	432	463	591	719	776	805	842
ZZ760	County Cost Group	378	378	378	378	445	445	463	463	530	468	533	615	713	496	547	660	445	474	604	736	795	824	863
ZZ770	County Cost Group	389	389	389	389	458	458	473	473	542	478	544	627	729	507	559	675	458	485	618	753	813	843	884
ZZ780	County Cost Group	400	400	400	400	471	471	485	485	554	491	559	645	744	521	576	689	471	499	636	769	831	862	904
ZZ790	County Cost Group	411	411	411	411	483	483	496	496	569	503	570	657	764	532	592	709	483	514	650	792	855	881	925
ZZ800	County Cost Group	422	422	422	422	496	496	509	509	580	516	586	674	779	546	605	724	496	524	663	809	874	900	946
ZZ810	County Cost Group	433	433	433	433	509	509	522	522	596	529	601	692	800	560	621	743	509	539	681	832	892	919	965
ZZ820	County Cost Group	443	443	443	443	522	522	535	535	607	542	616	704	820	575	638	763	522	553	699	848	910	938	984
ZZ830	County Cost Group	454	454	454	454	534	534	548	548	623	557	631	722	835	589	659	777	534	567	718	871	935	967	1015
ZZ840	County Cost Group	465	465	465	465	547	547	561	561	638	574	651	739	856	610	675	797	547	585	736	884	953	982	1035
ZZ850	County Cost Group	476	476	476	476	560	560	578	578	653	585	665	755	876	617	692	816	580	620	754	916	977	1001	1053
ZZ860	County Cost Group	487	487	487	487	573	573	591	591	669	599	681	773	897	632	713	836	573	618	772	939	996	1026	1084
ZZ870	County Cost Group	498	498	498	498	585	585	604	604	684	615	700	790	917	650	729	856	595	632	794	961	1020	1045	1111
ZZ880	County Cost Group	508	508	508	508	598	598	620	620	700	744	831	927	1053	667	750	880	598	650	813	984	1044	1071	1132
ZZ890	County Cost Group	519	519	519	519	611	611	637	637	715	647	734	828	963	682	771	900	611	668	831	1012	1069	1090	1159

## ALLOWANCES

### APPENDIX R—ISSUES IN THE DESIGN OF HOUSING ALLOWANCES

This appendix contains the 7<sup>th</sup> QPMC's development of alternative price-based housing allowance models.<sup>1</sup> We discuss three alternative methods for adjusting the housing allowance (HA) across geographic areas: basing variation on a price index, consumer surplus changes, and the compensating variation. The computational method for each alternative is described, and actual cases are developed for comparative purposes. Last, a summary section contains our rationale for using changes to consumer surplus as the model for the QOL housing allowance (PHA-II).

#### THEORY

Camm provides an example that is a useful starting point.<sup>2</sup> A military family moves from Norfolk, where it spends \$900 per month on housing, to Washington, DC, where housing is twice as expensive. Suppose, following Camm, that we say the price of Norfolk housing is \$1 per unit and the family consumed 900 units. In Washington, housing is \$2 per unit. Living in the same house in Washington as they did in Norfolk would mean paying twice as much, i.e. giving up an additional \$900 worth of other goods and services. The family is unlikely to choose this alternative. They will choose less house—that is, some combination of a smaller house, a less convenient location, or a less desirable neighborhood.

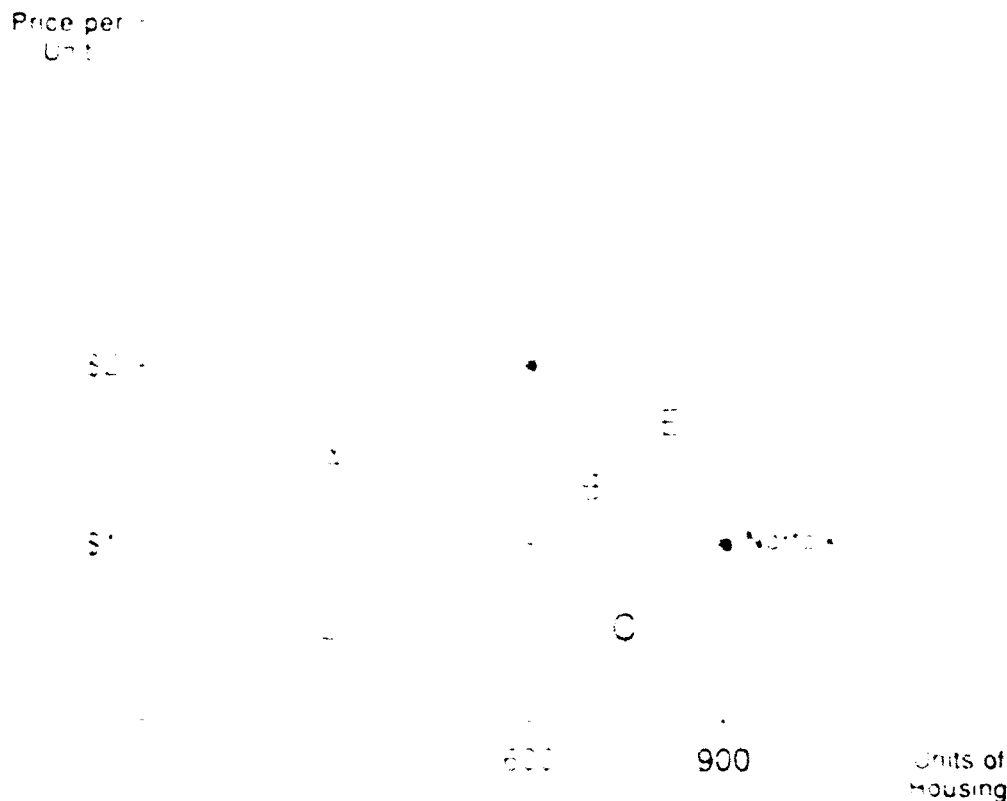
Figure R-1 displays their situation. According to the family's demand curve, which is a schedule of the dollar values of their marginal utilities, they will choose an amount of housing in Washington such that the last unit purchased has a marginal utility of at least \$2, the unit price of housing. In their case, the horizontal line at a price of \$2 intersects the demand curve at 600 units. The family's total housing expenditure,  $P \times Q$ , rises from \$900, areas  $C + D$ , to \$1,200 per month, areas  $A + D$ . The expenditure difference is thus  $(A + D) - (C + D) = A - C$  or \$300 per month.

If the family were compensated by the difference in their housing expenditures, \$300 per month, they would still be able to buy the same bundle of other goods and services in Washington, DC, as in Norfolk (assuming that prices for all other goods and services are the

---

<sup>1</sup>Margaret Barton and David Smith, SRA Corporation, played a significant role in the design of the QOL housing allowance; this attachment is essentially a compilation of their efforts. Barton and Smith's original papers reside in the 7th QPMC permanent files.

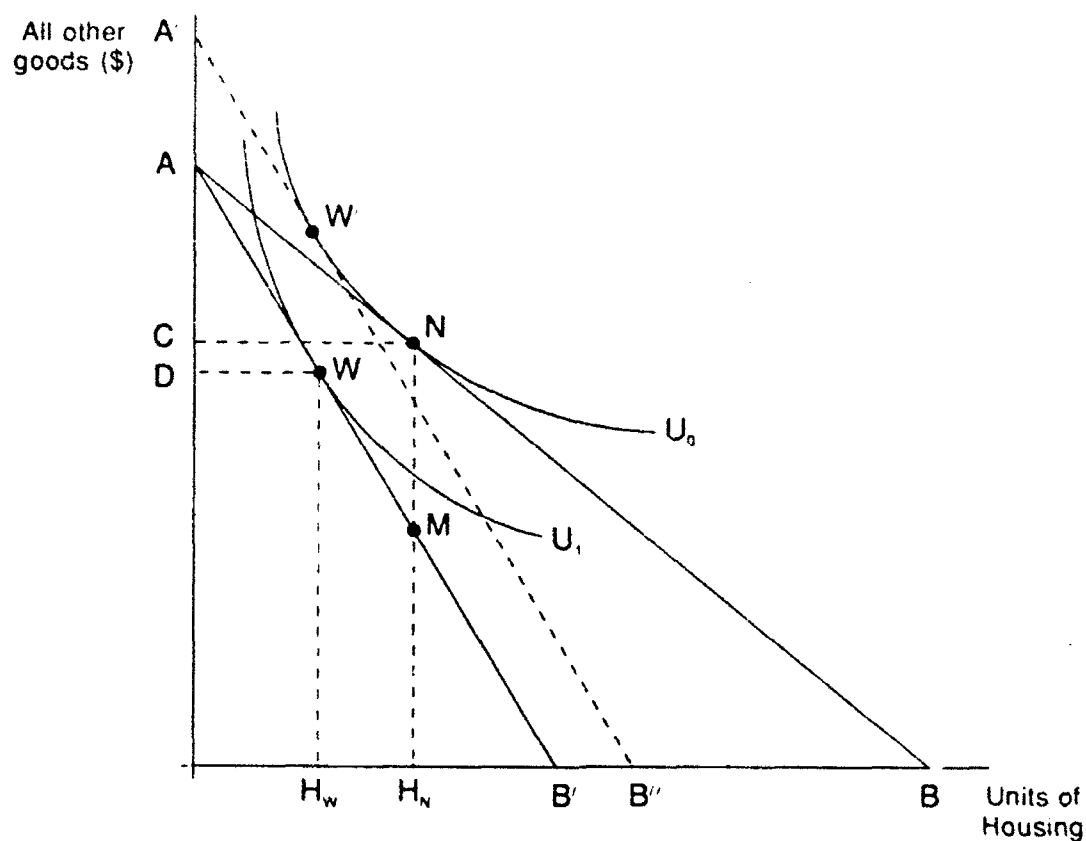
<sup>2</sup>Frank Camm, *Housing Demand and Department of Defense Policy on Housing Allowances*, RAND, R-3865-FMP, September 1990.



**Figure R-1.** Housing Demand Curve

same). However, they would still not be as well off as in Norfolk: they are living in one-third less house. How much would they have to be compensated for their loss of housing benefits?

The housing demand curve helps us value their lost benefits. When in Norfolk, the family chose an amount of housing such that the last unit of housing had a marginal utility just equal to its price \$1. That is, the 901st unit of housing may have offered the family only \$.99 worth of additional utility, but would have cost \$1 to buy. Thus, the family stopped consuming housing at 900 units. What if we asked the family to give up one unit of housing? We can be sure that the last unit was worth at least \$1 or the family would not have purchased it. And each additional unit they would give up has increasing marginal utility as indicated by the demand curve. When the family has given up 300 units, the marginal utility of the last unit, the 600th, is just equal to \$2, the price per unit of housing in Washington, DC. Each of the units of housing in between 600 and 900 has marginal utility less than \$2 but more than \$1, as indicated by the height of the demand curve. The utility loss associated



**Figure R-2. Indifference Curves**

with consuming less housing is the area under the demand curve between 600 and 900 units—areas  $B + C$ .<sup>3</sup>

In order to hold the family harmless when it moves from Norfolk to Washington, we must compensate it for both the increase in its housing expenditures and its loss of housing benefits. The sum of the increase in housing expenditures,  $A - C$ , and the loss of housing benefits,  $B + C$ , is  $A + B$  or \$750. Note that this amount is more than the family's increase in housing expenditures,  $A - C = \$300$ , but less than the amount that would enable them to buy exactly the same house in Washington, DC as in Norfolk,  $A + B + E = \$900$ .

Figure R-2 approaches the problem of compensating the consumer for an increase in the price of housing using budget constraints, which show the combinations of housing and all other goods the family can just afford given market prices and its income, and indifference

<sup>3</sup>This measure is only exact if the marginal utility of income is constant. We will return to this point later.

curves, which represent the family's utility function. The horizontal axis shows units of housing, and the vertical axis indicates units of the composite *all other goods* measured in dollars.

In Figure R-2,  $AB$  is the family's budget constraint in Norfolk. The slope of the budget constraint,  $-P_h/P_y$ , is (minus) the relative prices of the two goods. Because we have set  $P_y$  equal to \$1, the slope of the budget constraint is just  $-P_h$ , or (minus) the unit price of housing. The slope represents the rate at which the consumer, given prevailing prices, can trade units of all other goods for units of housing and maintain a constant expenditure of  $Y_0$ . Point  $A$  is the value of all other goods that the family could purchase, given their income of  $Y_0$ , if they bought no housing; thus,  $OA = Y_0$ .  $B$  is the number of housing units the family could purchase if they spent all of  $Y_0$  on housing. Similarly, all the points in between represent combinations of housing and all other goods that just exhaust the family's income.<sup>4</sup> Which combination will the family choose?

They will choose to allocate their income between housing and all other goods in a way that maximizes their utility as represented by their indifference curves. An indifference curve is the set of combinations of housing and all other goods that yields the same utility. Indifference curves farther from the origin represent greater combinations of both goods and therefore higher levels of utility. Utility is maximized at the point where the budget constraint is just tangent to an indifference curve. The indifference curve is the highest one the consumer can reach given the budget constraint. The tangency indicates that the consumer's willingness to trade all other goods for housing is just equal to the relative price of the goods.

Given budget constraint  $AB$ , the family maximizes its utility at point  $N$  on indifference curve  $U_0$  where it consumes  $H_N$  units of housing and  $\$C$  of all other goods. The family's move from Norfolk to Washington means that its budget constraint will shift from  $AB$ , whose slope of  $-1$  reflects a housing price of \$1 per unit, to  $AB'$ , with slope of  $-2$  implying that a unit of housing now costs twice as much as a unit of "all other goods." Thus the family can no longer afford point  $N$ . It will again maximize its utility, this time at point  $W$  on the lower indifference curve  $U_1$ .  $W$  corresponds to  $H_W$  units of housing and  $\$D$  of all other goods. Thus, relative to Norfolk, consumption of both housing and all other goods has declined: the family is consuming fewer units of housing but paying more for them.

How can the family be compensated for its higher costs and loss of housing benefits? This formulation makes the objective clear: if the family had level of utility  $U_0$  in Norfolk, then holding them harmless means giving them a cash transfer that will just enable them to attain  $U_0$  even though they are now subject to higher housing costs. A cash transfer equal to  $AA'$  shifts their budget constraint to  $A'B''$ , which is tangent to  $U_0$  at  $W$ .  $AA'$  is just the value necessary to hold the family's utility constant at  $U_0$ , given a change from the regime of

---

<sup>4</sup>This simplified, two-dimensional representation does not rule out saving. *All other goods* can include savings.

Norfolk prices to the higher housing prices in Washington. Simply making up the difference in their housing costs,  $CD$ , will not enable the family to obtain its former utility,  $U_0$ . On the other hand, enabling them to buy the same units of housing in Washington as in Norfolk would require a transfer equal to  $NM$ , which is greater than  $AA'$ . Such a transfer would overcompensate for the higher prices, placing the family on an indifference curve above  $U_0$ .

A cash transfer of  $AA'$  has the effect of moving the family along its original indifference curve  $U_0$  from point  $N$  to point  $W'$ . This movement reflects a pure substitution effect resulting only from the change in the relative price of housing. We have eliminated any income effects by holding the family on its original indifference curve. In contrast, the (Marshallian) demand curve in Figure R-1 includes both the income and the substitution effects that arise with price changes. However, by introducing Hicksian demand curves, which hold utility constant and reflect pure substitution effects, we can translate what we have captured in Figure R-2 to the demand curve framework of Figure R-1.

Figure R-3 is identical to Figure R-1 with the addition of the equivalent and compensating variations (Hicksian) demand curves. The observed demand curve from Figure R-1 is now labeled  $D_M$ . Let us begin on  $D_M$  at the point labeled Norfolk. This point corresponds to Figure R-2's point  $N$  with the family on indifference curve  $U_0$ . The compensating variations demand curve,  $D_{H(PH)}$ , indicates how much housing the family would demand if we increased the price of housing, but eliminated income effects and kept the family on indifference curve  $U_0$ . In this case, doubling the price of housing would move the family along  $D_{H(PH)}$  to point  $W'$ . Given this demand curve, the family would require a transfer equal to  $A + B + C + D$  in order to make it indifferent between moving to Washington and staying in Norfolk. This result contrasts with our conclusion from Figure R-1, which here is comparable to areas  $A + B + C$ . Again, it is smaller than a transfer that would enable the family to buy an equivalent house in Washington, DC; that transfer would equal  $A + B + C + D + E$ .

An alternative approach to the question is to ask how much we would have to take away from the family if they stayed in Norfolk but with the same level of utility that they would have if they moved to Washington. The answer to this question is obtained by the change in consumer's surplus relative to demand curve  $D_{H(PH)}$ :  $A + B$ .

Thus, the answer we get concerning compensation for the family depends on the demand curve we use. Willig shows that when the income effects are small, using the consumer surplus measured by the Marshallian demand curve results in very small errors.<sup>5</sup> In fact, the income effects associated with changes in housing prices may not be small. However, consumer surplus measured relative to the Marshallian demand curve represents a convenient average because, for administrative reasons, we would like the adjustment for moves from Norfolk to Washington to be symmetric to the adjustment for moves from Washington to Norfolk.

---

<sup>5</sup>Robert D. Willig, "Consumer's Surplus Without Apology," *American Economic Review*, September 1976.



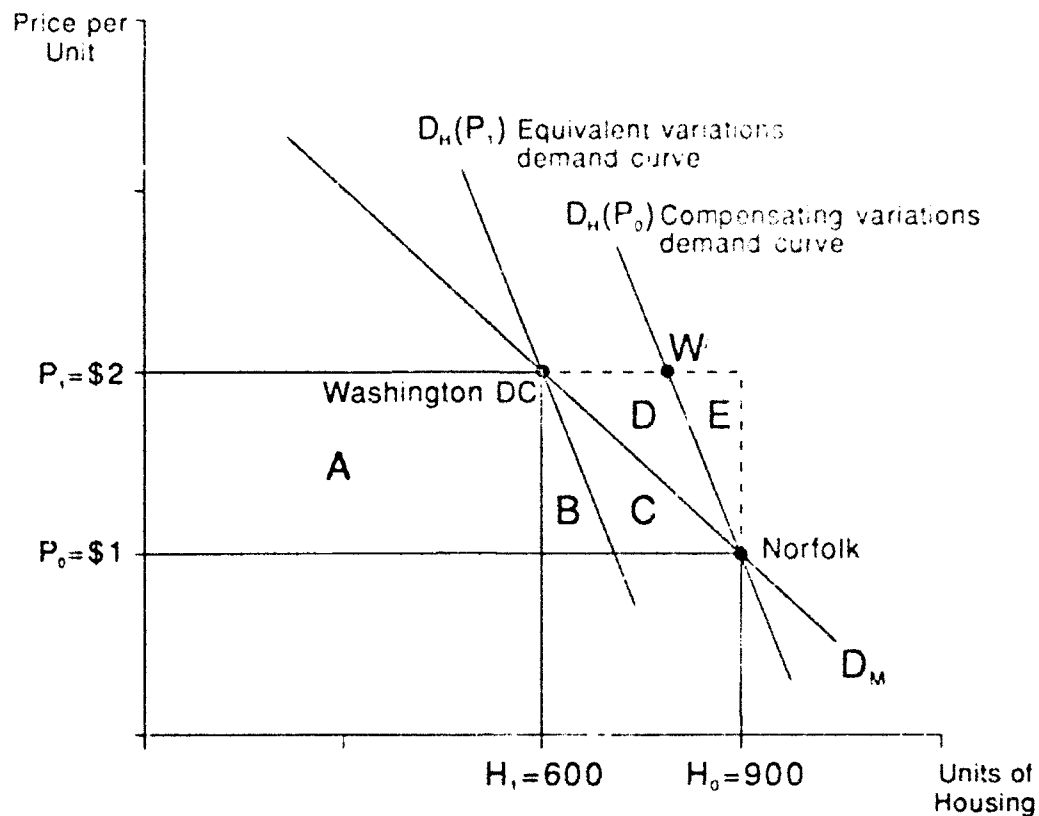


Figure R-3. Equivalent and Compensating Variations Demand Curves

In summary, the theoretically correct measure depends in part on how the question is asked and, regardless of how the question is asked, upon a generally unobservable demand curve. However, we conclude that consumer surplus, Figure R-3's area  $A + B + C$ , is a reasonable approximation to the correct answer. We further conclude that the change in price overstates the required level of compensation.

#### Derivation of the Consumer Surplus-Adjusted Housing Allowance (PHA-II)

The logic of the relationship between a price-based allowance and a consumer surplus-adjusted allowance can be seen from Figure R-4. Consider an E-6 with dependents who lives in Nashville, TN, where the unit price of housing is  $P_0$ . According to its housing demand curve  $DD$ , this E-6 family consumes  $Q_0$  units of housing. The family faces a PCS move, perhaps to Oakland, CA, where housing is more expensive at  $P_1$  dollars a unit, or perhaps to Pocatello, ID, where it is less expensive at  $P_2$  dollars per unit.

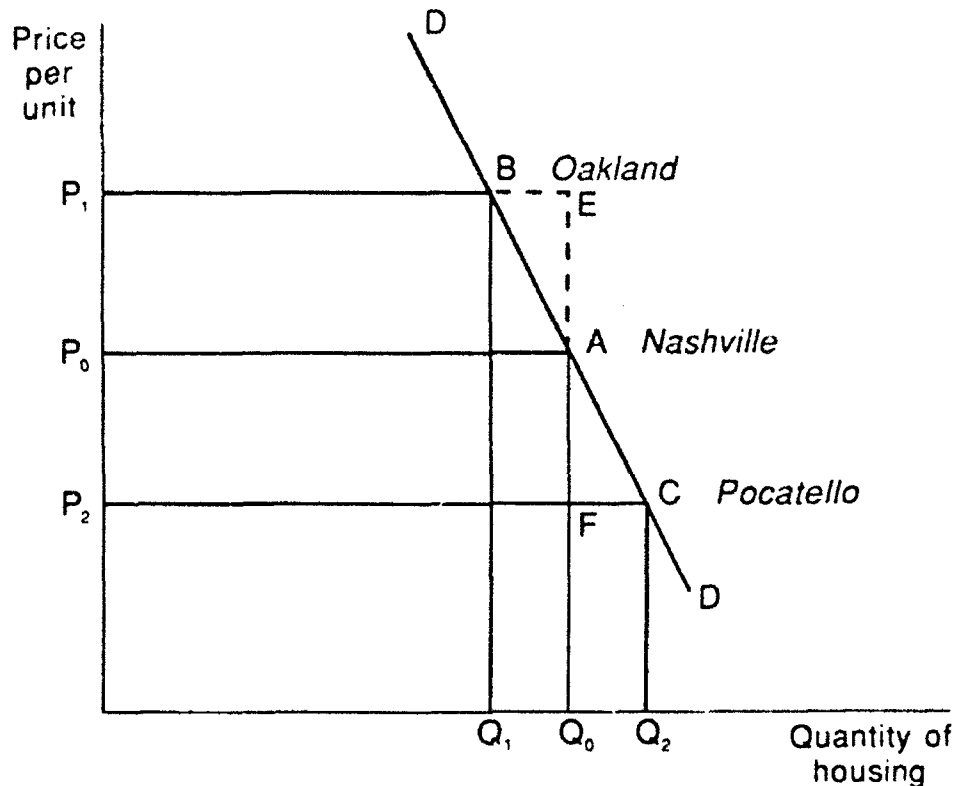


Figure R-4. Housing Demand Curve

Let us first examine the prospect of a move to Oakland. A price-based allowance would compensate the family for the increases in prices,  $P_1 - P_0$ , thus enabling the family to buy the same  $Q_0$  units at the higher price  $P_1$ . However, facing this higher price of housing, the family would move upward and to the left along  $DD$  to consume fewer units of housing,  $Q_1$ . Thus, an additional housing allowance of  $(P_1 - P_0) \cdot Q_0$ , the change in price times quantity  $Q_0$ , or  $P_1 E A P_0$ , would overcompensate the family for the effect of the increase in housing prices. The correct allowance would compensate the family for its loss of consumer surplus (CS)— $P_1 B A P_0$ . The change in consumer surplus, the decrease in the area under the demand curve as the family moves from Nashville to Oakland, approximates the family's utility loss from consuming less housing at higher prices.<sup>6</sup> Thus, a CS-adjusted allowance is smaller than a price-based allowance.

<sup>6</sup>As previously discussed, the exact measure of consumer surplus is the area under the Hicksian compensated demand curve. It is approximated by the area under the Marshallian demand curve.

Suppose, instead, the family were to move to Peacerville, where housing prices are \$12.00. Then the family would, according to its demand curve, choose  $Q_1 = Q_0$  units of housing. The family would experience a gain in consumer surplus of  $P_0 \Delta CP_0$ . Thus, their new housing allowance would be lower than the Nashville allowance by just this amount. However, a price-based allowance would fall by just  $P_0 \Delta CP_0$ , the change in the cost of  $Q_1$  units of housing. Again, the OLS-adjusted allowance is smaller than the price-based allowance.

Figure R-4 also shows that the two allowances are similar if the price change is small. For small changes in housing prices, there is very little difference between the area of the trapezoid, which indicates the change in consumer surplus, and the area of the rectangle, which shows the change in cost for  $Q_1$  units of housing. This point is also evident from the formulas that show the mathematical relationship between the two allowances. Let the housing allowance in Nashville be  $HA_0 = \alpha(P_0 Q_0)$ , where  $\alpha$  is the proportion of housing costs covered by the allowance. Then, the allowance in Oakland will be  $HA_1 = \alpha(P_1 Q_1 + \Delta CS)$ . The ratio of the two allowances is then:

$$\frac{HA_1}{HA_0} = \frac{P_0 Q_0 + \Delta CS}{P_0 Q_0} = \frac{P_0 Q_0 + \frac{(P_1 - P_0) \cdot (Q_1 + Q_0)}{2}}{P_0 Q_0}$$

This expression can be rewritten in terms of prices and the price elasticity of housing demand  $\eta_p$ :

$$\frac{HA_1}{HA_0} = \frac{P_1}{P_0} + \left[ \frac{\eta_p (P_1 - P_0)}{2 \left( \frac{P_1}{P_0} \right)} \right] \quad (1)$$

Because  $HA_0 = P_0$ , equation (1) reduces to:

---

<sup>2</sup>The housing price elasticity of demand,  $\eta_p$ , measures the percentage change in the demand for the quantity of housing services for a percentage change in the price of housing.

$$\eta_p = \frac{\frac{(Q_1 - Q_0)}{Q_0}}{\frac{(P_1 - P_0)}{P_0}}$$

The calculations in this report assume a housing price elasticity of -.75, the midpoint of empirical estimates that range from -.5 to -1.0. See Camm, *Housing Demand*, 40.

$$HA_i = P_i + \left[ \frac{\eta_p (P_i - P_m)}{2} \cdot \frac{1}{P_m} \right] \quad (2)$$

Thus, the CS-based allowance can be seen to be an adjustment to the price-based allowance that depends on the percentage changes in prices  $(P_i - P_m)/P_m$  and the price elasticity of housing demand,  $\eta_p$ . Because  $\eta_p$  is negative, the CS based measure will always be smaller than the price-based measure.

We can generalize equation (2) to suit DoD's needs by specifying that  $P_m = P_m$ , the national median housing price, and accounting for the constant absorption amount, or  $(1-\alpha) \cdot P_m$ . (Recall that  $\alpha$  is the proportion of housing costs covered by the allowance.) The formula for the consumer surplus-adjusted allowance in area  $i$ , (CSHA<sub>*i*</sub>), becomes:

$$CSHA_i = P_i + \left[ \frac{\eta_p}{2} \cdot \left( \frac{(P_i - P_m)^2}{P_m} \right) \right] - [(1-\alpha) \cdot P_m] \quad (3)$$

#### COMPARISON OF ALTERNATIVE MODELS FOR THE HOUSING ALLOWANCE

All three methods that have been considered for adjusting the housing allowance across areas—basing variation on a price index, consumer surplus changes, and the compensating variation—can be compared using the allowance formula derived above as equation (3):

$$HA_i = P_i + \left[ \frac{\eta_p}{2} \cdot \left( \frac{(P_i - P_m)^2}{P_m} \right) \right] - [(1-\alpha) \cdot P_m] \quad (4)$$

Assuming a zero price elasticity, formula (4) describes the housing allowance based on a price index. If the price elasticity from the ordinary (or Marshallian) demand curve of Figure R-4 is used, then the formula calculates an allowance based on consumer surplus changes. As mentioned previously, because the price elasticity is negative, the consumer surplus-based allowance in lower- and higher-than-average cost areas will be less than the price index-based allowance.

The third option for setting allowances by area is to use the compensating variation. This is defined as the amount of income required at  $p_i$  to restore the utility level achieved at the median housing prices. The compensating variation can be measured by integrating under the income-compensated (or Hicksian) demand curve in a manner analogous to the calculation of consumer surplus changes using the ordinary demand curve. This means that equation (4) can also be used to approximate the compensating variation if we define  $\eta_p$  as the price elasticity of the income-compensated demand curve.

The estimate of the income compensated price elasticity required to implement the approximation can be derived from the ordinary price and income elasticities using a variation of the Slutsky equation,

$$\eta_{pcn} = \eta_p + \eta_y \theta \quad (5)$$

where  $\eta_{pcn}$  is the income-compensated price elasticity,  $\eta_p$  is the ordinary price elasticity,  $\eta_y$  is the income elasticity, and  $\theta$  is the share of income spent on housing (at the median). Given that the income elasticity is positive, the compensated price elasticity will be less negative than the ordinary price elasticity. In terms of equation (4), this means that the allowance based on the compensating variation will fall between that based on consumer surplus changes and that based only on a price index. The example in Table R-1 illustrates the magnitudes of the differences among the three housing allowance models:

**Table R-1. Comparison of Alternative Models for the Housing Allowance**

MHA	Price Index	Consumer Surplus	Compensating Variation*
Oakland (High Cost)	\$841	\$802	\$813
Nashville (Median Cost)	\$520	\$520	\$520
Pocatello (Low Cost)	\$350	\$324	\$331

\*We assume  $\eta_p = -.75$  (as before), and  $\eta_y = .75$  (from Camm, *Housing Demand*, 38). For E-6s with dependents,  $\theta$ , the share of income spent on housing at the median, is .28. From equation (5) this implies that  $\eta_{pcn} = -.54$ .

## SUMMARY

The 7<sup>th</sup> QRMC concludes the following concerning the three alternative price-based housing allowance models:

- (1) The change in price overstates the required level of compensation.
- (2) The compensating variations model, while theoretically the most robust, is also difficult to explain and implement.
- (3) The change in consumer surplus provides a practical means for computing housing allowances, is theoretically defensible, and yields a reasonable approximation to the correct answer.

The results in Table R-1 confirm that there is little difference between the consumer surplus and compensating variations models. Thus, the consumer surplus model, equation (3), was the one adopted by the 7<sup>th</sup> QRMC to calculate the PHA-II, as presented in the Housing Allowance Proposal section of Chapter 4.

## ALLOWANCES

### APPENDIX S—PRICE-BASED HOUSING ALLOWANCES

Tables S-1 to S-3 of this appendix list price-based housing allowances (PHA-I and PHA-II) computed from Runzheimer rental expense data. Table S-1 provides the alternative allowances for E-6s with dependents for a sample of 93 MHAs. Tables S-2 and S-3 show the alternative allowances for E-4s, both with and without dependents, for all MHAs and County Cost Groups. The total housing allowance (THA) and size of the VHA-eligible population are also identified for relevant MHAs and paygrades.

The rental expense, THA, and VHA population data presented in this appendix are described in Appendices J, N, and O. The quality-of-life housing allowances were calculated using equation (3) of Appendix R. The following absorption factors were applied:

E-6s:	19.2 percent (1991 rate)
E-4s (with)	21.3 percent (1992 rate)
E-4s (without)	22.0 percent (1992 rate)

Table S-1. Price-Based Housing Allowances for E-6 with Dependents

MHA	Location	Rent Allowance	PHA-I	PHA-II	E-6 with)	F-6
		Rental Expense			THA	pop.
CA392	San Luis Obispo	\$1,213	\$1,077	\$942	\$599	19
CA036	Travis AFB	\$1,199	\$1,063	\$935	\$707	819
CA025	Ventura	\$1,015	\$879	\$829	\$825	470
DC053	Wash DC	\$1,006	\$870	\$823	\$809	3518
CA018	Oakland	\$977	\$841	\$802	\$808	1141
CA037	Los Angeles	\$968	\$832	\$796	\$811	2280
MD127	Aberdeen Prvng Grnds	\$901	\$765	\$745	\$533	313
NY222	Griffiss AFB	\$895	\$759	\$740	\$522	282
OH229	Cleveland S2	\$884	\$748	\$732	\$504	201
WA307	Everett	\$863	\$727	\$714	\$626	35
CA028	Fort Irwin	\$858	\$722	\$710	\$584	142
CA024	Camp Pendleton	\$849	\$713	\$703	\$731	1378
PA249	NAS Willow Grove	\$839	\$703	\$694	\$721	352
AZ016	Yuma	\$829	\$693	\$685	\$583	242
IL093	Scott AFB	\$826	\$690	\$683	\$512	389
NY215	Ballston Spa	\$822	\$686	\$679	\$600	435
CO047	Fort Collins	\$817	\$681	\$675	\$493	18
MI154	Grand Rapids B	\$816	\$680	\$674	\$476	37
CA038	San Diego	\$814	\$678	\$672	\$697	8287
NY216	Buffalo	\$809	\$673	\$668	\$432	89
NY226	Binghamton/Ithaca	\$773	\$637	\$635	\$529	39
VA295	Charlottesville	\$771	\$635	\$633	\$518	22
PA252	State College B	\$763	\$627	\$626	\$473	15
NV212	Nellis AFB	\$760	\$624	\$623	\$584	945
ME390	Bangor	\$759	\$623	\$622	\$557	51
NY225	Fort Drum	\$753	\$617	\$616	\$545	196
WA315	Aberdeen	\$744	\$608	\$607	\$445	2
MI341	Flint B	\$740	\$604	\$604	\$466	23
DE054	Dover AFB	\$739	\$603	\$603	\$541	287
GA071	Atlanta S2	\$735	\$599	\$598	\$584	612
FL057	Gainesville	\$732	\$596	\$595	\$489	35
PA255	Allentown B	\$728	\$592	\$592	\$571	36
IN094	Fort Harrison	\$724	\$588	\$588	\$467	374
WA311	Tacoma	\$713	\$577	\$577	\$496	2044
TX277	Dallas S2	\$704	\$568	\$568	\$550	506
IA082	Des Moines	\$702	\$566	\$566	\$524	94
CA032	Twentynine Palms	\$698	\$562	\$562	\$456	265
WI316	Madison	\$695	\$559	\$559	\$442	41
MO161	St Louis S2	\$692	\$556	\$556	\$527	236
FL056	Eglin AFB	\$688	\$553	\$552	\$463	1150
KY110	Fort Knox	\$685	\$549	\$549	\$419	963
OH232	Toledo B	\$682	\$546	\$545	\$466	56
SC261	Greenville	\$676	\$540	\$540	\$484	72

Table S-1 Continued

MHA	Location	Runzheimer Remain Expense	PH4-1	PH4-2	PH4-3	PH4-4
FL066	Tampa	\$573	\$533	\$537	\$543	779
ND189	Fargo	\$667	\$531	\$530	\$467	38
KS102	Fort Leavenworth	\$666	\$530	\$529	\$485	141
MD131	Fort Ritchie	\$661	\$527	\$524	\$487	99
TN269	Nashville	\$656	\$520	\$519	\$525	154
NM206	Albuquerque	\$653	\$517	\$515	\$512	289
WV320	Morgantown	\$651	\$515	\$513	\$419	22
IL335	Decatur	\$650	\$514	\$512	\$439	82
KY109	Louisville B	\$649	\$513	\$512	\$419	135
MI145	Sault Ste Marie	\$648	\$513	\$511	\$419	3
VA298	Norfolk/Portsmouth	\$644	\$509	\$507	\$578	10551
FL328	Avon Park Sebring	\$643	\$507	\$505	\$455	24
KY107	Lexington B	\$640	\$504	\$502	\$479	31
AR010	Little Rock	\$640	\$504	\$502	\$452	491
IN337	Evansville B	\$638	\$502	\$499	\$476	27
NC184	Greensboro	\$637	\$501	\$498	\$460	79
FL058	Jacksonville	\$632	\$496	\$493	\$527	3890
PA383	Johnstown B	\$626	\$490	\$486	\$419	20
WA313	Yakima	\$617	\$481	\$477	\$508	25
GA073	Fort Gordon	\$602	\$466	\$460	\$448	886
VA304	Wallops Island	\$601	\$465	\$459	\$521	13
VA297	Newport, VA	\$599	\$463	\$457	\$561	1761
AL002	Fort Rucker	\$596	\$460	\$454	\$419	449
AZ015	Davis-Montham AFB	\$596	\$460	\$453	\$485	493
FL397	Polk County	\$595	\$459	\$453	\$456	29
SC259	Charleston, SC	\$592	\$457	\$450	\$459	2965
OH233	Youngstown B	\$592	\$456	\$449	\$419	30
TX288	Wichita Falls	\$591	\$456	\$448	\$439	216
MS168	Gulfport	\$591	\$455	\$448	\$419	859
AL008	Tuscaloosa	\$591	\$455	\$447	\$450	21
AZ017	Navajo County	\$588	\$452	\$445	\$419	6
TN354	Manchester/Tullahoma	\$579	\$443	\$434	\$419	21
NC182	Ft Bragg	\$574	\$438	\$429	\$451	3758
MO162	Whiteman AFB	\$574	\$438	\$428	\$437	150
TX285	San Antonio	\$573	\$437	\$428	\$474	2234
AL005	Montgomery	\$571	\$436	\$426	\$462	389
KY106	Fort Campbell	\$570	\$434	\$424	\$419	1259
WI319	Appleton	\$565	\$429	\$418	\$517	17
NM208	Gallup	\$553	\$417	\$404	\$419	2
WY324	Cheyenne	\$552	\$417	\$404	\$433	248
GA080	Fort Stewart	\$552	\$416	\$403	\$455	864
SC263	Sumter/Shaw AFB	\$542	\$406	\$392	\$459	379
CO046	Colorado Springs	\$538	\$402	\$387	\$456	1827
OK237	Ft Sill	\$524	\$388	\$371	\$419	1516
WV360	Beckley	\$491	\$355	\$330	\$419	20
TX289	Beeville	\$488	\$352	\$327	\$419	32
ID087	Pocatello	\$486	\$350	\$324	\$419	13
OK235	Altus AFB	\$484	\$348	\$322	\$419	253
MO163	Fort Leonard Wood	\$480	\$344	\$317	\$419	445
MS169	Columbus AFB	\$466	\$330	\$299	\$444	56
WV321	Sugar Grove	\$416	\$280	\$235	\$419	6



Table S-2. Price Based Housing Allowances for E-1 to E-4 with dependent children

MHA	Location	Runzheimer	PBA-1	PBA-2	PBA-3	E-4
		Rental Expense				pop
AK400	Ketchikan, AK	\$845	\$723	\$723	\$723	1
AK401	Sitka, AK	\$785	\$663	\$663	\$663	0
AK402	Juneau, AK	\$885	\$763	\$763	\$763	0
AK403	Kodiak Island, AK	\$900	\$778	\$778	\$1,042	0
AK404	Anchorage, AK	\$664	\$541	\$536	\$728	705
AK405	Fairbanks, AK	\$756	\$634	\$612	\$699	362
AL001	Anniston/Fort McClellan, AL	\$431	\$308	\$295	\$341	99
AL002	Fort Rucker, AL	\$406	\$284	\$265	\$341	423
AL003	Huntsville, AL	\$516	\$393	\$391	\$344	78
AL004	Mobile, AL	\$427	\$305	\$291	\$368	24
AL005	Montgomery, AL	\$472	\$350	\$343	\$385	262
AL006	Auburn, AL	\$531	\$409	\$408	\$341	14
AL007	Birmingham, AL	\$493	\$371	\$366	\$348	66
AL008	Tuscaloosa, AL	\$526	\$403	\$402	\$353	3
AR009	Blytheville AFB, AR	\$423	\$300	\$285	\$341	286
AR010	Little Rock, AR	\$571	\$449	\$449	\$357	410
AR011	Pine Bluff, AR	\$443	\$320	\$309	\$358	6
AR012	Fort Chaffee/Fort Smith, AR	\$433	\$310	\$297	\$341	13
AZ013	Phoenix, AZ	\$552	\$430	\$430	\$446	781
AZ014	Fort Huachuca, AZ	\$471	\$348	\$341	\$349	208
AZ015	Davis-Monthan AFB, AZ	\$502	\$380	\$377	\$381	615
AZ016	Yuma, AZ	\$576	\$453	\$453	\$491	365
AZ017	Navajo County, AZ	\$388	\$266	\$244	\$341	6
CA018	Oakland, CA	\$845	\$722	\$674	\$660	814
CA019	San Francisco, CA	\$871	\$749	\$691	\$731	175
CA020	Castle AFB, CA	\$518	\$396	\$394	\$440	429
CA021	China Lake NAVWPCEN, CA	\$530	\$407	\$406	\$388	17
CA022	Fresno, CA	\$560	\$437	\$437	\$448	27
CA023	Lemoore NAS, CA	\$530	\$407	\$406	\$427	125
CA024	Camp Pendleton, CA	\$746	\$624	\$605	\$602	3184
CA025	Ventura, CA	\$855	\$733	\$681	\$719	450
CA026	Vandenberg AFB, CA	\$619	\$497	\$496	\$556	78
CA027	Marin/Sonoma, CA	\$749	\$627	\$607	\$677	28
CA028	Barstow/Fort Irwin, CA	\$548	\$425	\$425	\$463	147
CA029	George AFB, CA	\$569	\$447	\$447	\$446	209
CA030	Edwards AFB, CA	\$620	\$497	\$496	\$467	219
CA031	San Bernadino, CA	\$722	\$600	\$586	\$526	500
CA032	Twentynine Palms MCB, CA	\$478	\$355	\$349	\$347	365
CA033	Beale AFB, CA	\$463	\$341	\$333	\$404	126
CA034	Sacramento, CA	\$658	\$536	\$531	\$508	411
CA035	Stockton, CA	\$643	\$521	\$518	\$495	36
CA036	Vallejo/Travis AFB, CA	\$693	\$571	\$561	\$595	661
CA037	Los Angeles, CA	\$837	\$714	\$669	\$686	2095
CA038	San Diego, CA	\$731	\$609	\$593	\$575	4886
CA039	Monterey, CA	\$741	\$618	\$600	\$633	353
CA040	Bakersfield, CA	\$600	\$477	\$477	\$484	16
CA041	Riverside, CA	\$722	\$600	\$586	\$582	265
CA042	Humboldt County, CA	\$511	\$389	\$387	\$489	21

Table S-2 Continued

MHA	Location	Rundheimer		Edwards		E-4 ppm
		Rental Expense	PHA-I	PHA-II	TMA	
CA044	Santa Clara County, CA	\$956	\$833	\$718	\$758	276
CA392	San Luis Obispo, CA	\$816	\$693	\$655	\$471	12
CA3, 2	Bridgeport, CA	\$542	\$10	\$419	\$440	20
CO041	Denver, CO	\$531	\$408	\$407	\$416	428
CO046	Colorado Springs, CO	\$463	\$341	\$333	\$341	2117
CO047	Fort Collins, CO	\$529	\$407	\$406	\$373	4
CO048	La Junta/Rocky Ford, CO	\$528	\$406	\$404	\$341	2
CT049	New London, CT	\$691	\$565	\$560	\$567	491
CT050	Hartford, CT	\$767	\$645	\$621	\$605	60
CT051	New Haven/Fairfield, CT	\$740	\$618	\$600	\$644	32
DC053	Washington, DC Metro Area	\$836	\$714	\$669	\$695	1872
DE054	Dover AFB, DE	\$588	\$466	\$466	\$456	303
DE055	Rehoboth Beach, DE	\$543	\$421	\$420	\$418	29
FL056	Eglin AFB, FL	\$450	\$327	\$317	\$396	1273
FL057	Gainesville, FL	\$593	\$470	\$470	\$367	10
FL058	Jacksonville, FL	\$523	\$401	\$399	\$449	2080
FL059	Patrick AFB, FL	\$522	\$400	\$398	\$451	99
FL060	Miami, FL	\$667	\$545	\$539	\$568	292
FL061	Fort Lauderdale, FL	\$690	\$568	\$559	\$604	38
FL062	Orlando, FL	\$602	\$479	\$479	\$477	581
FL063	Panama City, FL	\$430	\$307	\$294	\$361	335
FL064	Pensacola, FL	\$480	\$357	\$352	\$369	485
FL065	Tallahassee, FL	\$624	\$502	\$500	\$398	38
FL066	Tampa, FL	\$585	\$462	\$462	\$467	737
FL067	West Palm Beach, FL	\$770	\$648	\$623	\$553	21
FL068	Astor, FL	2	\$329	\$319	\$393	38
FL069	Key West, FL		\$550	\$747	\$769	71
FL070	Volusia County, FL		\$400	\$398	\$419	5
FL328	Avon Park/Sebring, FL	5	\$379	\$375	\$361	18
FL397	Polk County, FL	\$502	\$379	\$376	\$372	33
GA071	Atlanta, GA	\$612	\$490	\$489	\$490	648
GA072	Albany, GA	\$450	\$328	\$318	\$341	38
GA073	Fort Gordon, GA	\$510	\$388	\$385	\$388	374
GA074	Kings Bay/Brunswick, GA	\$535	\$413	\$412	\$406	256
GA075	Fort Benning, GA	\$490	\$368	\$363	\$374	775
GA076	Robins AFB, GA	\$490	\$368	\$363	\$366	268
GA077	Savannah, GA	\$560	\$438	\$438	\$411	303
GA078	Athens, GA	\$512	\$390	\$387	\$375	9
GA079	Dahlonega, GA	\$492	\$370	\$366	\$374	5
GA080	Fort Stewart, GA	\$465	\$343	\$335	\$398	1077
GA081	Moody AFB, GA	\$465	\$343	\$335	\$341	396
HI408	Honolulu County, HI	\$1,044	\$922	\$778	\$840	1875
HI409	Hawaii County, HI	\$899	\$777	\$708	\$621	4
IA082	Des Moines, IA	\$564	\$442	\$442	\$391	40
IA083	Ames, IA	\$572	\$449	\$449	\$341	5
ID084	Boise, ID	\$509	\$387	\$384	\$349	23
ID085	Idaho Falls, ID	\$424	\$302	\$287	\$341	87
ID086	Mountain Home AFB, ID	\$489	\$367	\$362	\$341	125

Table S-2 (continued)

MHA	Location	Runzheimer		PHA-I	PHA-II	E-4 (with)	
		Rental Expense				THA	pop
ID087	Pacific, ID	\$389	\$267	\$244	\$341		3
ID333	Meacham, Pullman WA	\$432	\$110	\$297	\$341		4
IL088	Chanute AFB, IL	\$410	\$287	\$270	\$341		64
IL089	Rock Island, IL	\$523	\$401	\$399	\$341		15
IL090	Peoria, IL	\$535	\$412	\$411	\$341		23
IL092	Great Lakes NAVTRACEN, IL	\$710	\$587	\$575	\$534		627
IL093	Scott AFB, IL	\$457	\$335	\$326	\$403		267
IL325	Chicago, IL	\$862	\$740	\$686	\$532		131
IL335	Springfield Decatur, IL	\$544	\$422	\$421	\$358		19
IL363	Winnebago, IL	\$548	\$426	\$426	\$341		13
IL366	Joliet Army Depot	\$588	\$466	\$466	\$190		14
IN094	Indianapolis Ft Harrison, IN	\$615	\$493	\$492	\$393		223
IN095	Grisson AFB, IN	\$475	\$352	\$346	\$341		114
IN096	Lafayette, IN	\$560	\$437	\$437	\$387		2
IN097	Fort Wayne, IN	\$545	\$422	\$422	\$377		17
IN099	South Bend, IN	\$605	\$482	\$482	\$341		15
IN337	Evansville, IN	\$526	\$404	\$402	\$341		5
IN338	Terre Haute, IN	\$515	\$392	\$390	\$341		4
IN367	Gary, IN	\$581	\$458	\$458	\$385		43
IN399	Bloomington, IN	\$541	\$419	\$418	\$389		2
KS100	Fort Riley, KS	\$501	\$379	\$375	\$341		989
KS101	Wichita/McConnell AFB, KS	\$496	\$374	\$370	\$390		446
KS102	Fort Leavenworth, KS	\$503	\$381	\$377	\$362		57
KS104	Lawrence, KS	\$524	\$402	\$400	\$403		1
KS105	Topeka, KS	\$484	\$362	\$357	\$370		42
KY106	Fort Campbell, KY	\$455	\$333	\$323	\$341		1643
KY107	Lexington, KY	\$516	\$393	\$391	\$345		21
KY109	Louisville, KY	\$540	\$418	\$417	\$341		64
KY110	Fort Knox, KY	\$416	\$293	\$277	\$341		407
LA113	England AFB, LA	\$468	\$345	\$338	\$341		447
LA114	Baton Rouge, LA	\$406	\$283	\$265	\$393		24
LA115	Fort Polk, LA	\$413	\$290	\$273	\$341		898
LA116	New Orleans, LA	\$531	\$409	\$408	\$392		335
LA117	Shreveport/Barksdale AFB, LA	\$469	\$347	\$340	\$370		856
LA118	Lafayette, LA	\$396	\$274	\$253	\$361		46
LA326	St Mary and Terrebonne, LA	\$412	\$290	\$273	\$342		15
LA370	Lake Charles, LA	\$496	\$374	\$370	\$392		19
LA371	Monroe, LA	\$428	\$305	\$291	\$350		20
MA120	Boston, MA	\$970	\$848	\$745	\$645		48
MA121	Cape Cod, MA	\$721	\$598	\$584	\$588		12
MA122	Worcester, MA	\$791	\$668	\$638	\$587		10
MA123	Fort Devens/Ayer, MA	\$661	\$538	\$533	\$573		169
MA124	Brockton/S. Weymouth, MA	\$931	\$808	\$725	\$688		69
MA125	Essex Co., MA	\$951	\$828	\$736	\$622		4
MA126	Hampden County, MA	\$679	\$556	\$549	\$500		47
MA377	Hanscomb AFB, MA	\$951	\$828	\$736	\$700		62
MD127	Aberdeen Proving Grounds, MD	\$562	\$439	\$439	\$435		58
MD128	Annapolis, MD	\$802	\$679	\$646	\$652		45

Table S-2 Continued

MHA	Location	Runzheimer	PHA-I	PHA-II	E-4(with)	E-4
		Rental Expense			THA	pop
MD129	Baltimore, MD	\$717	\$594	\$581	\$569	67
MD130	Fort Detrick, MD	\$682	\$559	\$552	\$546	60
MD131	Fort Richie, MD	\$567	\$444	\$444	\$393	63
MD133	Fort G. G. Meade, MD	\$802	\$679	\$646	\$674	393
MD134	Indian Head NAVORDSTA, MD	\$876	\$754	\$694	\$625	11
MD135	Patuxent River, MD	\$717	\$594	\$581	\$574	221
ME136	Brunswick, ME	\$769	\$647	\$622	\$521	198
ME137	Loring AFB, ME	\$444	\$322	\$311	\$371	65
ME139	Portland, ME	\$669	\$547	\$541	\$531	7
ME140	Bar Harbor, ME	\$569	\$447	\$447	\$393	12
ME390	Bangor, ME	\$639	\$517	\$514	\$441	35
MI142	Detroit, MI	\$734	\$612	\$595	\$419	155
MI143	KI Sawyer AFB, MI	\$516	\$393	\$391	\$341	107
MI145	Sault Ste Marie, MI	\$431	\$308	\$295	\$341	0
MI146	Traverse City, MI	\$636	\$514	\$511	\$460	12
MI148	Muskegon, MI	\$646	\$524	\$521	\$358	2
MI149	Port Huron, MI	\$574	\$452	\$452	\$400	2
MI150	Wurtsmith AFB, MI	\$551	\$429	\$429	\$345	104
MI152	Battle Creek/Kalamazoo, MI	\$536	\$414	\$413	\$367	11
MI153	Lansing, MI	\$636	\$514	\$511	\$383	17
MI154	Grand Rapids, MI	\$641	\$519	\$516	\$398	19
MI155	Ann Arbor, MI	\$699	\$577	\$567	\$556	4
MI156	Saginaw, MI	\$569	\$447	\$447	\$351	14
MI341	Flint, MI	\$564	\$442	\$442	\$383	13
MN158	Duluth, MN	\$642	\$520	\$517	\$341	24
MN159	Minneapolis/St Paul, MN	\$663	\$541	\$536	\$482	89
MO160	Kansas City, MO	\$565	\$443	\$443	\$409	89
MO161	St. Louis, MO	\$500	\$377	\$374	\$420	87
MO162	Whiteman AFB, MO	\$383	\$261	\$237	\$341	298
MO163	Fort Leonard Wood, MO	\$411	\$289	\$272	\$341	195
MO164	Springfield, MO	\$459	\$337	\$328	\$341	23
MO165	Columbia/Jefferson City, MO	\$463	\$341	\$333	\$341	23
MS168	Gulfport, MS	\$456	\$334	\$324	\$341	568
MS169	Columbus AFB, MS	\$381	\$259	\$234	\$341	41
MS170	Jackson, MS	\$475	\$353	\$346	\$349	39
MS171	Meridian, MS	\$436	\$314	\$301	\$341	46
MS172	Hattiesburg, MS	\$446	\$324	\$313	\$341	5
MT175	Malmstrom AFB/Great Fls, MT	\$418	\$296	\$280	\$341	273
NC177	Morehead/Cherry Pt MCAS, NC	\$446	\$323	\$313	\$375	523
NC178	Camp Lejeune, NC	\$431	\$308	\$295	\$368	3013
NC179	Charlotte, NC	\$590	\$467	\$467	\$394	59
NC180	Durham/Chapel Hill, NC	\$605	\$482	\$442	\$419	11
NC181	Elizabeth City, NC	\$456	\$333	\$324	\$382	0
NC182	Fort Bragg/Pope AFB, NC	\$475	\$352	\$346	\$384	2766
NC183	Seymour Johnson AFB, NC	\$515	\$392	\$390	\$372	284
NC184	Greensboro, NC	\$542	\$420	\$419	\$387	44
NC185	Raleigh, NC	\$585	\$462	\$462	\$497	29
NC186	Wilmington, NC	\$536	\$413	\$412	\$389	16

Table S-2 Continued

MHA	Location	Rental Expense	PHA-I	PHA-II	E-4 (w/TH)	E-4 pop
					THA	
ND188	Bismarck, ND	\$468	\$346	\$338	\$341	11
ND189	Fargo, ND	\$529	\$407	\$405	\$363	13
ND190	Grand Forks, ND	\$574	\$452	\$452	\$341	182
ND191	Minot AFB, ND	\$418	\$296	\$280	\$367	192
NE192	Omaha/Offutt AFB, NE	\$578	\$455	\$455	\$413	770
NE193	Lincoln, NE	\$537	\$414	\$413	\$353	10
NH194	Portsmouth, NH/Kittery, ME	\$745	\$622	\$603	\$540	32
NH195	Manchester/Concord, NH	\$605	\$483	\$482	\$522	19
NJ196	Atlantic City, NJ	\$685	\$563	\$555	\$566	9
NJ198	Cape May, NJ	\$684	\$562	\$554	\$518	14
NJ200	Fort Monmouth/Earls NWS, NJ	\$830	\$708	\$665	\$634	115
NJ201	Perth Amboy, NJ	\$825	\$702	\$661	\$635	19
NJ202	Northern New Jersey	\$845	\$722	\$674	\$632	58
NJ203	Trenton, NJ	\$784	\$662	\$633	\$605	15
NJ204	Ft Dix/McGuire/Lakehurst, NJ	\$651	\$528	\$524	\$522	487
NM205	Holloman AFB/Alamogordo, NM	\$445	\$322	\$312	\$341	360
NM206	Albuquerque/Kirtland AFB, NM	\$544	\$421	\$421	\$411	190
NM207	Cannon AFB/Clovis, NM	\$420	\$297	\$282	\$341	391
NM208	Gallop, NM	\$424	\$301	\$287	\$341	2
NM209	White Sands MR/Las Cruces, NM	\$509	\$386	\$384	\$341	22
NM210	Santa Fe/Los Alamos, NM	\$629	\$506	\$504	\$420	16
NV211	Fallon NAS, NV	\$506	\$384	\$381	\$466	32
NV212	Nellis AFB/Las Vegas, NV	\$621	\$499	\$498	\$523	1124
NV213	Carson City, NV	\$576	\$454	\$454	\$533	19
NY215	Ballston Spa/Albany, NY	\$708	\$586	\$574	\$484	39
NY216	Buffalo, NY	\$579	\$457	\$457	\$390	37
NY217	West Point, NY	\$788	\$666	\$636	\$613	32
NY218	Long Island, NY	\$1,058	\$936	\$783	\$631	46
NY219	New York City, NY	\$979	\$857	\$750	\$631	227
NY220	Plattsburgh, NY	\$615	\$493	\$492	\$420	137
NY221	Rochester, NY	\$645	\$523	\$520	\$442	30
NY222	Rome/Griffiss AFB, NY	\$560	\$438	\$438	\$418	461
NY223	Seneca Army Dep/Syracuse, NY	\$610	\$488	\$487	\$416	45
NY225	Ft 1 Drum/Watertown, NY	\$605	\$483	\$483	\$402	333
NY226	Binghamton/Ithaca, NY	\$575	\$453	\$453	\$412	6
NY349	Westchester County, NY	\$1,124	\$1,001	\$804	\$683	12
NY395	Jamestown, NY	\$524	\$402	\$400	\$341	2
OH227	Akron, OH	\$623	\$501	\$499	\$398	43
OH228	Cincinnati, OH	\$556	\$434	\$434	\$361	29
OH229	Cleveland, OH	\$665	\$543	\$537	\$436	89
OH230	Columbus, OH	\$538	\$416	\$415	\$372	106
OH231	Wright-Patterson AFB, OH	\$588	\$466	\$466	\$395	380
OH232	Toledo, OH	\$548	\$426	\$426	\$358	22
OH233	Youngstown, OH	\$497	\$374	\$370	\$341	31
OH382	Mansfield, OH	\$428	\$306	\$292	\$341	22
OK235	Altus AFB, OK	\$381	\$258	\$234	\$341	280
OK236	Vance AFB/Enid, OK	\$373	\$251	\$225	\$341	43
OK237	Fort Sill/Lawton, OK	\$421	\$298	\$283	\$341	1030

Table S-2 Continued

MHA	Location	Runzheimer	PHA-I	PHA-II	E-4(w/h)	E-4 pop
		Rental Expense			THA	
OK239	Oklahoma City, OK	\$448	\$326	\$315	\$366	855
OK240	Tulsa, OK	\$523	\$401	\$399	\$347	38
OR241	Astoria, OR	\$482	\$360	\$354	\$341	1
OR242	Coos Bay, OR	\$422	\$300	\$285	\$348	3
OR243	Portland, OR	\$627	\$505	\$503	\$428	100
OR244	Salem, OR	\$477	\$355	\$349	\$398	13
OR245	Corvallis, OR	\$512	\$390	\$387	\$36	0
OR246	Eugene, OR	\$557	\$435	\$435	\$	11
PA247	Carlisle Barracks, PA	\$612	\$489	\$489	\$	75
PA248	Philadelphia, PA/Camden, NJ	\$745	\$622	\$603	\$	585
PA249	Nas Willow Grove, PA	\$699	\$576	\$566	\$	137
PA250	Pittsburgh, PA	\$616	\$494	\$493	\$	63
PA251	Reading, PA	\$642	\$520	\$517	\$	17
PA252	State College, PA	\$682	\$560	\$552	\$	6
PA253	Erie, PA	\$569	\$447	\$447	\$	15
PA254	Wilkes-Barre/Scranton, PA	\$617	\$495	\$494	\$	37
PA255	Allentown/Bethlehem, PA	\$642	\$520	\$517	\$	21
PA380	Letterkenny Army Depot, PA	\$467	\$344	\$337	\$	1
PA383	Johnstown, PA	\$500	\$378	\$374	\$	4
RI256	Newport, RI	\$870	\$748	\$690	\$588	213
RI257	Providence, RI	\$787	\$665	\$635	\$499	39
SC258	Beaufort/Parris Island, SC	\$484	\$361	\$356	\$416	460
SC259	Charleston, SC	\$528	\$406	\$404	\$401	1892
SC260	Columbia/Fort Jackson, SC	\$517	\$395	\$393	\$408	240
SC261	Greenville, SC	\$541	\$419	\$418	\$347	38
SC262	Myrtle Beach AFB, SC	\$484	\$361	\$356	\$413	366
SC263	Sumter/Shaw AFB, SC	\$447	\$325	\$314	\$369	396
SD264	Rapid City/Ellsworth AFB, SD	\$545	\$422	\$422	\$359	477
SD265	Sioux Falls, SD	\$505	\$382	\$379	\$367	11
TN266	Chattanooga, TN	\$513	\$390	\$388	\$377	92
TN267	Knoxville, TN	\$553	\$431	\$430	\$341	30
TN268	Memphis, TN	\$567	\$445	\$445	\$365	319
TN269	Nashville, TN	\$551	\$429	\$428	\$392	79
TN353	Johnson City/Kingsport, TN	\$543	\$420	\$420	\$341	44
TN354	Manchester/Tullahoma, TN	\$450	\$328	\$318	\$341	2
TX270	Abilene/Dyess AFB, TX	\$434	\$312	\$299	\$366	563
TX271	Amarillo, TX	\$449	\$327	\$316	\$341	6
TX272	Austin/Bergstrom AFB, TX	\$514	\$392	\$389	\$412	445
TX273	Beaumont, TX	\$464	\$342	\$334	\$366	14
TX274	College Station, TX	\$534	\$412	\$411	\$406	7
TX275	Corpus Christi, TX	\$495	\$372	\$368	\$394	126
TX276	Kingsville, TX	\$450	\$327	\$317	\$367	18
TX277	Dallas, TX	\$560	\$438	\$438	\$479	300
TX278	Laughlin AFB/Del Rio, TX	\$409	\$287	\$269	\$341	23
TX279	El Paso, TX	\$529	\$407	\$405	\$361	825
TX280	Galveston, TX	\$534	\$412	\$411	\$413	8
TX281	Brownsville, TX	\$455	\$332	\$323	\$357	18
TX282	Houston, TX	\$504	\$382	\$379	\$446	131
TX283	Lubbock/Reese AFB, TX	\$469	\$347	\$339	\$341	71

Table S-2 Continued

MHA	Location	Partial Expend	Pop	Ph-A-P	E-4 * 0.7	E-4
TX284	Goodfellow AFB, TX	\$436	\$377	\$473	\$345	173
TX285	San Antonio, TX	\$535	\$347	\$379	\$384	1841
TX286	Fort Hood, TX	\$434	\$312	\$299	\$341	2740
TX287	Texarkana, TX	\$148	\$125	\$315	\$377	21
TX288	Wichita Falls Sheppard AFB, TX	\$494	\$372	\$367	\$366	109
TX289	Boeville, TX	\$375	\$252	\$227	\$341	17
TX356	Fort Worth, TX	\$548	\$425	\$425	\$431	777
UT291	Ogden Hill AFB, UT	\$468	\$346	\$338	\$347	470
UT292	Salt Lake City, UT	\$548	\$426	\$425	\$351	121
UT357	Provo, UT	\$493	\$371	\$366	\$341	36
VA295	Charlottesville, VA	\$656	\$534	\$529	\$421	3
VA296	Quantico/Woodbridge, VA	\$698	\$576	\$566	\$572	341
VA297	Hampton/Newport News, VA	\$539	\$417	\$416	\$441	1427
VA298	Norfolk/Portsmouth, VA	\$530	\$407	\$406	\$478	6809
VA300	Petersburg/Fort Lee, VA	\$501	\$379	\$375	\$405	127
VA301	Richmond, VA	\$581	\$459	\$459	\$435	52
VA302	Warrenton/Vint Hill Farm, VA	\$571	\$449	\$449	\$651	45
VA303	Lexington, VA	\$411	\$289	\$271	\$341	2
VA304	Wallops Island, VA	\$530	\$408	\$407	\$384	3
VA362	Roanoke, VA	\$542	\$420	\$420	\$341	15
VA368	Camp A.P. Hill, VA	\$631	\$509	\$507	\$489	55
VT305	Burlington, VT	\$693	\$571	\$562	\$497	15
WA306	Bremerton, WA	\$558	\$436	\$436	\$462	920
WA307	Everett, WA	\$563	\$441	\$441	\$554	12
WA308	Port Angeles, WA	\$466	\$344	\$336	\$341	0
WA309	Seattle, WA	\$576	\$453	\$453	\$493	97
WA310	Spokane, WA	\$463	\$341	\$333	\$355	343
WA311	Tacoma, WA	\$533	\$411	\$410	\$407	1704
WA312	Whidbey Island, WA	\$591	\$469	\$469	\$474	457
WA313	Yakima, WA	\$561	\$439	\$439	\$384	18
WA315	Aberdeen, WA	\$391	\$269	\$247	\$341	2
WI316	Madison, WI	\$599	\$476	\$476	\$431	44
WI317	Milwaukee, WI	\$684	\$562	\$554	\$426	50
WI318	Sparta/Fort McCoy, WI	\$469	\$346	\$339	\$345	97
WI319	Oshkosh/Appleton, WI	\$492	\$370	\$366	\$348	15
WI358	Green Bay, WI	\$495	\$372	\$368	\$341	8
WI359	Stevenspoint, WI	\$497	\$371	\$371	\$372	14
WV320	Morgantown, WV	\$548	\$425	\$425	\$341	13
WV321	Sugar Grove, WV	\$373	\$250	\$224	\$341	9
WV322	Huntington, WV	\$463	\$340	\$332	\$341	5
WV323	Charleston, WV	\$508	\$385	\$383	\$345	20
WV360	Beckley, WV	\$403	\$280	\$261	\$341	3
WY324	Cheyenne, WY	\$464	\$341	\$334	\$341	281
ZZ530	County Cost Group	\$396	\$273	\$253	\$341	19
ZZ540	County Cost Group	\$426	\$303	\$289	\$341	28
ZZ550	County Cost Group	\$401	\$279	\$259	\$341	48
ZZ560	County Cost Group	\$395	\$272	\$251	\$341	75
ZZ570	County Cost Group	\$429	\$306	\$293	\$341	108

Table S-2 continued

MHA	Location	Runzheimer	PHA-I	PHA-II	E-4, w/10	E-4
		Rental Expense			THA	pop
ZZ580	County Cost Group	\$368	\$245	\$218	\$341	175
ZZ590	County Cost Group	\$441	\$318	\$307	\$341	143
ZZ600	County Cost Group	\$437	\$315	\$303	\$341	95
ZZ610	County Cost Group	\$394	\$272	\$250	\$341	212
ZZ620	County Cost Group	\$451	\$329	\$319	\$341	115
ZZ630	County Cost Group	\$452	\$330	\$320	\$341	179
ZZ640	County Cost Group	\$437	\$314	\$302	\$346	222
ZZ650	County Cost Group	\$560	\$437	\$437	\$356	166
ZZ660	County Cost Group	\$490	\$368	\$363	\$363	109
ZZ670	County Cost Group	\$488	\$366	\$361	\$414	119
ZZ680	County Cost Group	\$574	\$452	\$452	\$380	33
ZZ690	County Cost Group	\$504	\$382	\$379	\$387	27
ZZ700	County Cost Group	\$472	\$350	\$343	\$397	67
ZZ710	County Cost Group	\$490	\$368	\$363	\$407	45
ZZ720	County Cost Group	\$446	\$324	\$313	\$417	30
ZZ730	County Cost Group	\$561	\$439	\$439	\$428	35
ZZ740	County Cost Group	\$552	\$430	\$430	\$438	19
ZZ750	County Cost Group	\$555	\$432	\$432	\$448	37
ZZ760	County Cost Group	\$686	\$563	\$555	\$462	13
ZZ770	County Cost Group	\$498	\$375	\$372	\$472	13
ZZ780	County Cost Group	\$418	\$295	\$279	\$485	1
ZZ790	County Cost Group	\$471	\$349	\$342	\$499	2
ZZ800	County Cost Group	\$695	\$573	\$563	\$513	4
ZZ810	County Cost Group	\$443	\$321	\$310	\$526	0
ZZ820	County Cost Group	\$720	\$597	\$584	\$540	0
ZZ830	County Cost Group	\$740	\$618	\$600	\$554	0
ZZ840	County Cost Group	\$755	\$633	\$611	\$571	4
ZZ850	County Cost Group	\$770	\$648	\$623	\$584	1
ZZ860	County Cost Group	\$753	\$631	\$610	\$601	0
ZZ870	County Cost Group	\$800	\$678	\$644	\$619	0
ZZ880	County Cost Group	\$741	\$619	\$601	\$636	3
ZZ890	County Cost Group	\$830	\$708	\$665	\$653	47



Table S-3. Price-Based Housing Allowances for E-1 to E-4 without dependents

MHA	Location	Runzheimer	Price-Based Housing Allowances			E-4 pop
		Rental Expense	PHA-I	PHA-II	PHA	
AK400	Ketchikan, AK	\$694	\$584	\$556	\$543	0
AK401	Sitka, AK	\$644	\$534	\$519	\$506	0
AK402	Juneau, AK	\$744	\$634	\$590	\$574	0
AK403	Kodiak Island, AK	\$798	\$688	\$622	\$728	0
AK404	Anchorage, AK	\$575	\$465	\$461	\$509	188
AK405	Fairbanks, AK	\$642	\$532	\$517	\$468	89
AL001	Anniston/Fort McClellan, AL	\$370	\$260	\$247	\$238	30
AL002	Fort Rucker, AL	\$325	\$215	\$192	\$238	469
AL003	Huntsville, AL	\$435	\$325	\$321	\$240	20
AL004	Mobile, AL	\$371	\$261	\$249	\$257	11
AL005	Montgomery, AL	\$421	\$311	\$306	\$269	135
AL006	Auburn, AL	\$465	\$355	\$354	\$238	16
AL007	Birmingham, AL	\$432	\$322	\$318	\$243	61
AL008	Tuscaloosa, AL	\$470	\$360	\$359	\$247	2
AR009	Blytheville AFB, AR	\$332	\$221	\$200	\$238	92
AR010	Little Rock, AR	\$466	\$355	\$354	\$249	168
AR011	Pine Bluff, AR	\$362	\$251	\$237	\$250	0
AR012	Fort Chaffee/Fort Smith, AR	\$357	\$246	\$231	\$238	4
AZ013	Phoenix, AZ	\$453	\$342	\$341	\$311	361
AZ014	Fort Huachuca, AZ	\$366	\$256	\$242	\$244	89
AZ015	Davis-Monthan AFB, AZ	\$423	\$312	\$308	\$266	260
AZ016	Yuma, AZ	\$481	\$371	\$370	\$343	65
AZ017	Navajo County, AZ	\$303	\$193	\$164	\$238	2
CA018	Oakland, CA	\$721	\$610	\$574	\$461	359
CA019	San Francisco, CA	\$749	\$639	\$593	\$510	86
CA020	Castle AFB, CA	\$439	\$329	\$326	\$307	139
CA021	China Lake NAVWEPEN, CA	\$454	\$344	\$342	\$271	10
CA022	Fresno, CA	\$469	\$359	\$358	\$313	11
CA023	Lemoore NAS, CA	\$469	\$359	\$358	\$298	35
CA024	Camp Pendleton, CA	\$650	\$539	\$523	\$421	746
CA025	Ventura, CA	\$735	\$624	\$584	\$502	400
CA026	Vandenberg AFB, CA	\$519	\$409	\$409	\$388	19
CA027	Marin/Sonoma, CA	\$666	\$555	\$535	\$473	22
CA028	Barstow/Fort Irwin, CA	\$465	\$354	\$353	\$323	25
CA029	George AFB, CA	\$499	\$389	\$389	\$311	90
CA030	Edwards AFB, CA	\$559	\$449	\$447	\$326	49
CA031	San Bernadino, CA	\$622	\$511	\$500	\$367	144
CA032	Twentynine Palms MCB, CA	\$395	\$284	\$276	\$242	118
CA033	Beale AFB, CA	\$399	\$289	\$281	\$282	59
CA034	Sacramento, CA	\$559	\$449	\$446	\$355	133
CA035	Stockton, CA	\$519	\$409	\$408	\$346	12
CA036	Vallejo/Travis AFB, CA	\$599	\$489	\$482	\$415	223
CA037	Los Angeles, CA	\$717	\$607	\$572	\$479	435
CA038	San Diego, CA	\$625	\$514	\$503	\$402	2129
CA039	Monterey, CA	\$615	\$505	\$495	\$442	325
CA040	Bakersfield, CA	\$514	\$404	\$403	\$338	23
CA041	Riverside, CA	\$622	\$511	\$500	\$406	118
CA042	Humboldt County, CA	\$431	\$321	\$317	\$341	12

Table S-3 Continued

MHA	Location	Runzheimer	PHA-I	PHA-II	E-4(w/hold)	E-4 pcp
		Rental Expense			THA	
CA044	Santa Clara County, CA	\$790	\$680	\$618	\$557	369
CA392	San Luis Obispo, CA	\$675	\$565	\$542	\$329	5
CA393	Bridgeport, CA	\$471	\$360	\$360	\$313	2
CO045	Denver, CO	\$413	\$303	\$297	\$290	277
CO046	Colorado Springs, CO	\$383	\$273	\$262	\$238	589
CO047	Fort Collins, CO	\$459	\$349	\$348	\$261	2
CO048	La Junta/Rocky Ford, CO	\$458	\$348	\$346	\$238	4
CT049	New London, CT	\$638	\$528	\$514	\$396	194
CT050	Hartford, CT	\$654	\$544	\$526	\$422	292
CT051	New Haven/Fairfield, CT	\$618	\$507	\$497	\$450	32
DC053	Washington, DC Metro Area	\$731	\$621	\$581	\$485	1300
DE054	Dover AFB, DE	\$529	\$419	\$418	\$318	122
DE055	Rehoboth Beach, DE	\$479	\$369	\$369	\$292	13
FL056	Eglin AFB, FL	\$349	\$238	\$221	\$277	552
FL057	Gainesville, FL	\$467	\$357	\$356	\$256	9
FL058	Jacksonville, FL	\$441	\$331	\$328	\$314	883
FL059	Patrick AFB, FL	\$441	\$330	\$327	\$315	38
FL060	Miami, FL	\$556	\$446	\$443	\$397	119
FL061	Fort Lauderdale, FL	\$566	\$456	\$453	\$422	23
FL062	Orlando, FL	\$510	\$400	\$400	\$333	156
FL063	Panama City, FL	\$379	\$268	\$257	\$252	113
FL064	Pensacola, FL	\$419	\$308	\$303	\$257	206
FL065	Tallahassee, FL	\$497	\$387	\$387	\$278	45
FL066	Tampa, FL	\$493	\$383	\$383	\$326	226
FL067	West Palm Beach, FL	\$656	\$546	\$528	\$386	18
FL068	Astor, FL	\$380	\$270	\$259	\$274	34
FL069	Key West, FL	\$809	\$698	\$628	\$537	92
FL070	Volusia County, FL	\$446	\$335	\$333	\$292	1
FL328	Avon Park/Sebring, FL	\$395	\$284	\$276	\$252	2
FL397	Polk County, FL	\$420	\$310	\$305	\$260	32
GA071	Atlanta, GA	\$525	\$415	\$414	\$342	348
GA072	Albany, GA	\$394	\$284	\$275	\$238	12
GA073	Fort Gordon, GA	\$444	\$334	\$331	\$271	100
GA074	Kings Bay/Brunswick, GA	\$439	\$329	\$326	\$283	52
GA075	Fort Benning, GA	\$419	\$309	\$304	\$261	164
GA076	Robins AFB, GA	\$414	\$304	\$298	\$255	99
GA077	Savannah, GA	\$509	\$399	\$399	\$287	59
GA078	Athens, GA	\$410	\$300	\$294	\$262	8
GA079	Dahlonega, GA	\$395	\$285	\$276	\$261	0
GA080	Fort Stewart, GA	\$409	\$299	\$292	\$278	168
GA081	Moody AFB, GA	\$409	\$299	\$292	\$238	196
HI408	Honolulu County, HI	\$885	\$775	\$665	\$587	1016
HI409	Hawaii County, HI	\$705	\$595	\$564	\$433	4
IA082	Des Moines, IA	\$482	\$372	\$372	\$273	48
IA083	Ames, IA	\$470	\$359	\$359	\$238	8
ID084	Boise, ID	\$434	\$323	\$320	\$244	18
ID085	Idaho Falls, ID	\$334	\$223	\$202	\$238	500
ID086	Mountain Home AFB, ID	\$379	\$268	\$257	\$238	40

Table S-3 Continued

MHA	Location	Runzheimer		E-4: A (1000)		E-1 pop
		Rental Expense	PHA-I	PHA-II	THA	
ID087	Pocatella, ID	\$339	\$228	\$208	\$238	1
ID333	Moscow, ID/Pullman, WA	\$342	\$232	\$213	\$238	3
IL088	Chanute AFB, IL	\$346	\$235	\$217	\$238	32
IL089	Rock Island, IL	\$449	\$339	\$337	\$238	10
IL090	Peoria, IL	\$456	\$345	\$344	\$238	42
IL092	Great Lakes NAVTRACEN, IL	\$626	\$516	\$504	\$373	216
IL093	Scott AFB, IL	\$399	\$289	\$281	\$281	353
IL325	Chicago, IL	\$724	\$613	\$576	\$372	94
IL335	Springfield/Decatur, IL	\$180	\$370	\$370	\$250	16
IL363	Winnebago, IL	\$454	\$344	\$342	\$238	8
IL366	Joliet Army Depot	\$489	\$379	\$379	\$279	6
IN094	Indianapolis/Ft Harrison, IN	\$499	\$388	\$388	\$274	225
IN095	Grissom AFB, IN	\$417	\$307	\$302	\$238	43
IN096	Lafayette, IN	\$473	\$362	\$362	\$271	6
IN097	Fort Wayne, IN	\$457	\$347	\$345	\$263	5
IN099	South Bend, IN	\$517	\$407	\$407	\$238	4
IN337	Evansville, IN	\$440	\$329	\$326	\$238	6
IN338	Terre Haute, IN	\$428	\$317	\$313	\$238	3
IN367	Gary, IN	\$518	\$408	\$407	\$269	52
IN399	Bloomington, IN	\$460	\$349	\$348	\$272	0
KS100	Fort Riley, KS	\$403	\$293	\$286	\$238	119
KS101	Wichita/McConnell AFB, KS	\$440	\$330	\$327	\$272	124
KS102	Fort Leavenworth, KS	\$395	\$285	\$276	\$253	17
KS104	Lawrence, KS	\$367	\$256	\$243	\$281	2
KS105	Topeka, KS	\$428	\$318	\$314	\$259	73
KY106	Fort Campbell, KY	\$388	\$278	\$269	\$238	440
KY107	Lexington, KY	\$460	\$349	\$348	\$241	7
KY109	Louisville, KY	\$455	\$344	\$343	\$238	52
KY110	Fort Knox, KY	\$365	\$254	\$241	\$238	137
LA113	England AFB, LA	\$368	\$257	\$244	\$238	102
LA114	Baton Rouge, LA	\$351	\$241	\$224	\$275	26
LA115	Fort Polk, LA	\$388	\$277	\$268	\$238	774
LA116	New Orleans, LA	\$431	\$321	\$317	\$273	271
LA117	Shreveport/Barksdale AFB, LA	\$379	\$269	\$257	\$259	275
LA118	Lafayette, LA	\$317	\$207	\$181	\$252	32
LA326	St Mary and Terrebonne, LA	\$353	\$243	\$226	\$239	2
LA370	Lake Charles, LA	\$417	\$307	\$301	\$273	34
LA371	Monroe, LA	\$373	\$262	\$250	\$245	9
MA120	Boston, MA	\$834	\$724	\$641	\$450	27
MA121	Cape Cod, MA	\$582	\$471	\$466	\$410	18
MA122	Worcester, MA	\$677	\$567	\$544	\$410	19
MA123	Fort Devens/Ayer, MA	\$536	\$426	\$425	\$400	143
MA124	Brockton/S. Weymouth, MA	\$802	\$691	\$624	\$480	100
MA125	Essex Co, MA	\$807	\$696	\$626	\$434	1
MA126	Hampden County, MA	\$585	\$475	\$469	\$349	51
MA377	Hanscomb AFB, MA	\$807	\$696	\$626	\$489	54
MD127	Aberdeen Proving Grounds, MD	\$449	\$339	\$337	\$304	17
MD128	Annapolis, MD	\$709	\$599	\$567	\$455	25

Table S-2 Continued

MHA	Location	Runzheimer	PHA-I	PHA-II	E-4(without)	E-4 pop
		Rental Expense			THA	
MD129	Baltimore, MD	\$634	\$524	\$511	\$397	44
MD130	Fort Detrick, MD	\$614	\$504	\$495	\$381	34
MD131	Fort Richie, MD	\$494	\$384	\$384	\$275	27
MD133	Fort G. G. Meade, MD	\$709	\$599	\$567	\$471	388
MD134	Indian Head NAVORDSTA, MD	\$715	\$605	\$571	\$437	6
MD135	Patuxent River, MD	\$634	\$524	\$511	\$401	138
ME136	Brunswick, ME	\$630	\$520	\$507	\$364	181
ME137	Loring AFB, ME	\$380	\$270	\$259	\$259	41
ME139	Portland, ME	\$560	\$450	\$447	\$371	1
ME140	Bar Harbor, ME	\$530	\$420	\$419	\$274	18
ME390	Bangor, ME	\$525	\$415	\$414	\$308	12
MI142	Detroit, MI	\$621	\$511	\$500	\$293	126
MI143	KI Sawyer AFB, MI	\$456	\$346	\$344	\$238	166
MI145	Sault Ste Marie, MI	\$386	\$276	\$266	\$238	0
MI146	Traverse City, MI	\$534	\$424	\$423	\$321	8
MI143	Muskegon, MI	\$554	\$444	\$442	\$250	0
MI149	Port Huron, MI	\$481	\$371	\$370	\$279	0
MI150	Wurtsmith AFB, MI	\$454	\$344	\$342	\$241	61
MI152	Battle Creek/Kalamazoo, MI	\$459	\$349	\$348	\$256	3
MI152	Lansing, MI	\$529	\$419	\$418	\$268	11
MI154	Grand Rapids, MI	\$514	\$404	\$404	\$278	7
MI155	Ann Arbor, MI	\$596	\$486	\$479	\$388	0
MI156	Saginaw, MI	\$506	\$396	\$396	\$245	3
MI341	Flint, MI	\$461	\$351	\$349	\$268	0
MN158	Duluth, MN	\$554	\$444	\$442	\$238	23
MN159	Minneapolis/St Paul, MN	\$546	\$436	\$434	\$336	86
MO160	Kansas City, MO	\$455	\$345	\$343	\$286	79
MO161	St. Louis, MO	\$423	\$313	\$309	\$293	62
MO162	Whiteman AFB, MO	\$297	\$186	\$155	\$238	90
MO163	Fort Leonard Wood, MO	\$340	\$229	\$210	\$238	152
MO164	Springfield, MO	\$378	\$268	\$256	\$238	17
MO165	Columbia/Jefferson City, MO	\$397	\$286	\$278	\$238	13
MS168	Gulfport, MS	\$395	\$285	\$276	\$238	170
MS169	Columbus AFB, MS	\$350	\$240	\$223	\$238	15
MS170	Jackson, MS	\$394	\$284	\$275	\$244	23
MS171	Meridian, MS	\$385	\$275	\$265	\$238	12
MS172	Hattiesburg, MS	\$360	\$250	\$235	\$238	1
MT175	Malmstrom AFB/Great Fis, MT	\$331	\$221	\$199	\$238	69
NC177	Morehead/Cherry Pt MCAS, NC	\$369	\$259	\$246	\$262	123
NC178	Camp Lejeune, NC	\$364	\$254	\$240	\$257	679
NC179	Charlotte, NC	\$498	\$388	\$388	\$275	35
NC180	Durham/Chapel Hill, NC	\$523	\$413	\$412	\$293	7
NC181	Elizabeth City, NC	\$419	\$309	\$304	\$266	0
NC182	Fort Bragg/Pope AFB, NC	\$413	\$303	\$297	\$268	856
NC183	Seymour Johnson AFB, NC	\$393	\$283	\$274	\$260	137
NC184	Greensboro, NC	\$470	\$360	\$359	\$270	28
NC185	Raleigh, NC	\$498	\$388	\$388	\$347	28
NC186	Wilmington, NC	\$159	\$349	\$348	\$272	12

Table S-3 Continued

MHA	Location	Run/Share		PHA-I	PHA-II	E-4 (without)		E-4 pos
		Rental Expense				THA		
ND188	Bismarck, ND	\$402	\$291	\$284	\$238		19	
ND189	Fargo, ND	\$467	\$357	\$356	\$253		13	
ND190	Grand Forks, ND	\$447	\$337	\$335	\$208		75	
ND191	Minot AFB, ND	\$357	\$246	\$231	\$256		101	
NE192	Omaha/Offutt AFB, NE	\$466	\$355	\$354	\$288		847	
NE193	Lincoln, NE	\$455	\$344	\$343	\$247		10	
NH194	Portsmouth, NH/Kittery, ME	\$556	\$445	\$443	\$377		15	
NH195	Manchester/Concord, NH	\$546	\$435	\$434	\$364		10	
NJ196	Atlantic City, NJ	\$578	\$468	\$463	\$395		4	
NJ198	Cape May, NJ	\$622	\$512	\$501	\$361		12	
NJ200	Fort Monmouth/Earls NWS, NJ	\$712	\$602	\$568	\$443		49	
NJ201	Perth Amboy, NJ	\$712	\$601	\$568	\$444		19	
NJ202	Northern New Jersey, NJ	\$712	\$601	\$568	\$442		35	
NJ203	Trenton, NJ	\$657	\$546	\$528	\$422		10	
NJ204	Ft Dix/McGuire/Lakehurst, NJ	\$543	\$433	\$432	\$365		340	
NM205	Holloman AFB/Alamogordo, NM	\$404	\$294	\$287	\$238		162	
NM206	Albuquerque/Kirtland AFB, NM	\$453	\$343	\$341	\$287		73	
NM207	Cannon AFB/Clovis, NM	\$369	\$259	\$246	\$238		109	
NM208	Gallup, NM	\$383	\$273	\$263	\$238		0	
NM209	White Sands MR/Las Cruces, NM	\$413	\$303	\$297	\$238		3	
NM210	Santa Fe/Los Alamos, NM	\$548	\$438	\$436	\$293		0	
NV211	Fallon NAS, NV	\$396	\$285	\$277	\$325		14	
NV212	Nellis AFB/Las Vegas, NV	\$531	\$420	\$420	\$366		561	
NV213	Carson City, NV	\$476	\$365	\$365	\$372		8	
NY215	Ballston Spa/Albany, NY	\$610	\$500	\$491	\$338		278	
NY216	Buffalo, NY	\$470	\$360	\$359	\$272		27	
NY217	West Point, NY	\$690	\$580	\$553	\$428		15	
NY218	Long Island, NY	\$899	\$788	\$670	\$441		42	
NY219	New York City, NY	\$829	\$718	\$638	\$441		153	
NY220	Plattsburgh, NY	\$503	\$393	\$393	\$293		71	
NY221	Rochester, NY	\$548	\$438	\$436	\$309		14	
NY222	Rome/Griffiss AFB, NY	\$443	\$333	\$330	\$292		264	
NY223	Seneca Army Dep/Syracuse, NY	\$533	\$423	\$422	\$291		36	
NY225	Fort Drum/Watertown, NY	\$513	\$403	\$403	\$281		20	
NY226	Binghamton/Ithaca, NY	\$508	\$398	\$398	\$287		1	
NY349	Westchester County, NY	\$951	\$841	\$689	\$477		7	
NY395	Jamestown, NY	\$465	\$355	\$354	\$238		0	
OH227	Akron, OH	\$522	\$411	\$411	\$278		17	
OH228	Cincinnati, OH	\$471	\$361	\$360	\$252		15	
OH229	Cleveland, OH	\$553	\$443	\$441	\$304		20	
OH230	Columbus, OH	\$447	\$337	\$335	\$260		105	
OH231	Wright-Patterson AFB, OH	\$507	\$397	\$397	\$276		411	
OH232	Toledo, OH	\$481	\$371	\$371	\$250		10	
OH233	Youngstown, OH	\$410	\$300	\$294	\$238		46	
OH382	Mansfield, OH	\$362	\$252	\$237	\$238		14	
OK235	Altus AFB, OK	\$346	\$235	\$217	\$238		137	
OK236	Vance AFB/Enid, OK	\$323	\$212	\$188	\$238		5	
OK237	Fort Sill/Lawton, OK	\$361	\$250	\$235	\$238		377	

Table S-3 Continued

MHA	Location	Runzheimer	PHA-I	PHA-II	E-4 (per hour)	
		Rental Expense			PHA	pop
OK239	Oklahoma City, OK	\$372	\$262	\$250	\$255	567
OK240	Tulsa, OK	\$413	\$302	\$296	\$242	22
OR241	Astoria, OR	\$421	\$310	\$306	\$238	0
OR242	Coos Bay, OR	\$371	\$260	\$248	\$243	1
OR243	Portland, OR	\$513	\$405	\$405	\$299	37
OR244	Salem, OR	\$426	\$315	\$311	\$278	8
OR245	Corvallis, OR	\$456	\$345	\$344	\$266	2
OR246	Eugene, OR	\$471	\$360	\$360	\$251	6
PA247	Carlisle Barracks, PA	\$533	\$423	\$422	\$272	90
PA248	Philadelphia, PA/Camden, NJ	\$642	\$531	\$517	\$365	155
PA249	Nas Willow Grove, PA	\$615	\$505	\$495	\$433	66
PA250	Pittsburgh, PA	\$523	\$413	\$412	\$252	41
PA251	Reading, PA	\$568	\$458	\$455	\$303	30
PA252	State College, PA	\$593	\$483	\$477	\$277	2
PA253	Erie, PA	\$455	\$345	\$343	\$238	4
PA254	Wilkes-Barre/Scranton, PA	\$539	\$429	\$428	\$238	69
PA255	Allentown/Bethlehem, PA	\$563	\$453	\$450	\$336	5
PA380	Letterkenny Army Depot, PA	\$383	\$273	\$262	\$238	1
PA383	Johnstown, PA	\$397	\$286	\$278	\$238	0
RI256	Newport, RI	\$751	\$641	\$594	\$411	41
RI257	Providence, RI	\$684	\$573	\$518	\$348	64
SC258	Beaufort/Parris Island, SC	\$462	\$351	\$350	\$290	116
SC259	Charleston, SC	\$466	\$356	\$355	\$280	650
SC260	Columbia/Fort Jackson, SC	\$460	\$350	\$349	\$285	231
SC261	Greenville, SC	\$455	\$344	\$343	\$242	30
SC262	Myrtle Beach AFB, SC	\$422	\$311	\$307	\$288	113
SC263	Sumter/Shaw AFB, SC	\$395	\$285	\$277	\$258	117
SD264	Rapid City/Ellsworth AFB, SD	\$468	\$358	\$357	\$251	428
SD265	Sioux Falls, SD	\$433	\$323	\$320	\$257	3
TN266	Chattanooga, TN	\$431	\$321	\$317	\$263	36
TN267	Knoxville, TN	\$452	\$341	\$339	\$238	10
TN268	Memphis, TN	\$466	\$355	\$355	\$255	150
TN269	Nashville, TN	\$464	\$354	\$353	\$273	53
TN353	Johnson City/Kingsport, TN	\$456	\$346	\$344	\$238	20
TN354	Manchester/Tullahoma, TN	\$393	\$283	\$274	\$238	1
TX270	Abilene/Dyess AFB, TX	\$359	\$248	\$233	\$255	125
TX271	Amarillo, TX	\$359	\$248	\$233	\$238	4
TX272	Austin/Bergstrom AFB, TX	\$398	\$288	\$280	\$288	129
TX273	Beaumont, TX	\$398	\$288	\$280	\$256	0
TX274	College Station, TX	\$418	\$308	\$302	\$283	1
TX275	Corpus Christi, TX	\$404	\$294	\$287	\$275	41
TX276	Kingsville, TX	\$389	\$279	\$270	\$256	13
TX277	Dallas, TX	\$443	\$333	\$330	\$334	102
TX278	Laughlin AFB/Del Rio, TX	\$314	\$203	\$177	\$238	18
TX279	El Paso, TX	\$439	\$328	\$326	\$252	117
TX280	Galveston, TX	\$428	\$318	\$314	\$288	7
TX281	Brownsville, TX	\$369	\$259	\$246	\$249	3
TX282	Houston, TX	\$408	\$298	\$291	\$311	149
TX283	Lubbock/Reese AFB, TX	\$394	\$283	\$275	\$238	33

Table S-3 Continued

MHA	Location	Rental Expense	E-4		E-4
			PHAI	PHAI	pos
TX284	Goodfellow AFB, TX	\$409	\$276	\$272	75
TX285	San Antonio, TX	\$399	\$289	\$281	1016
TX286	Fort Hood, TX	\$383	\$273	\$262	524
TX287	Texarkana, TX	\$376	\$265	\$253	8
TX288	Wichita Falls/Sheppard AFB, TX	\$394	\$283	\$275	99
TX289	Beeville, TX	\$289	\$173	\$146	7
TX356	Fort Worth, TX	\$400	\$320	\$316	236
UT291	Ogden/Hill AFB, UT	\$404	\$294	\$287	140
UT292	Salt Lake City, UT	\$444	\$334	\$331	47
UT357	Provo, UT	\$434	\$324	\$320	4
VA295	Charlottesville, VA	\$563	\$453	\$450	0
VA296	Quantico/Woodbridge, VA	\$627	\$517	\$505	128
VA297	Hampton/Newport News, VA	\$457	\$347	\$345	603
VA298	Norfolk/Portsmouth, VA	\$477	\$367	\$367	2047
VA300	Petersburg/Fort Lee, VA	\$443	\$333	\$331	61
VA301	Richmond, VA	\$509	\$399	\$399	49
VA302	Warrenton/Vint Hill Farm, VA	\$513	\$403	\$403	12
VA303	Lexington, VA	\$323	\$213	\$190	0
VA304	Wallops Island, VA	\$460	\$349	\$348	0
VA362	Roanoke, VA	\$465	\$354	\$354	2
VA368	Camp A.P. Hill, VA	\$568	\$458	\$455	4
VT305	Burlington, VT	\$544	\$434	\$433	8
WA306	Bremerton, WA	\$464	\$354	\$353	132
WA307	Everett, WA	\$479	\$369	\$369	2
WA308	Port Angeles, WA	\$377	\$267	\$255	1
WA309	Seattle, WA	\$477	\$366	\$366	50
WA310	Spokane, WA	\$362	\$251	\$237	89
WA311	Tacoma, WA	\$439	\$329	\$326	350
WA312	Whidbey Island, WA	\$457	\$347	\$345	285
WA313	Yakima, WA	\$452	\$342	\$340	14
WA315	Aberdeen, WA	\$347	\$237	\$219	0
WI316	Madison, WI	\$512	\$402	\$402	97
WI317	Milwaukee, WI	\$593	\$482	\$476	58
WI318	Sparta/Fort McCoy, WI	\$337	\$227	\$207	238
WI319	Oshkosh/Appleton, WI	\$436	\$325	\$322	31
WI358	Green Bay, WI	\$417	\$307	\$302	7
WI359	Stevenspoint, WI	\$416	\$305	\$300	14
WV320	Morgantown, WV	\$427	\$316	\$312	5
WV321	Sugar Grove, WV	\$342	\$231	\$212	7
WV322	Huntington, WV	\$402	\$291	\$284	1
WV323	Charleston, WV	\$437	\$326	\$323	18
WV350	Beckley, WV	\$342	\$231	\$212	0
WY324	Cheyenne, WY	\$406	\$295	\$289	84
ZZ530	County Cost Group	\$328	\$218	\$196	3
ZZ540	County Cost Group	\$353	\$243	\$227	20
ZZ550	County Cost Group	\$333	\$222	\$201	39
ZZ560	County Cost Group	\$328	\$217	\$195	52
ZZ570	County Cost Group	\$356	\$246	\$230	42

Table S-3 Continued

MHA	Location	Runzheimer	E-4 (without)			E-4 pop
		Rental Expense	PHA-I	PHA-II	THA	
ZZ580	County Cost Group	\$305	\$195	\$166	\$238	94
ZZ590	County Cost Group	\$366	\$256	\$242	\$238	110
ZZ600	County Cost Group	\$363	\$253	\$239	\$238	34
ZZ610	County Cost Group	\$327	\$217	\$194	\$238	112
ZZ620	County Cost Group	\$374	\$264	\$252	\$238	50
ZZ630	County Cost Group	\$375	\$265	\$253	\$238	109
ZZ640	County Cost Group	\$362	\$252	\$238	\$241	139
ZZ650	County Cost Group	\$464	\$354	\$353	\$249	124
ZZ660	County Cost Group	\$407	\$297	\$290	\$253	60
ZZ670	County Cost Group	\$405	\$295	\$288	\$289	48
ZZ680	County Cost Group	\$476	\$366	\$366	\$265	5
ZZ690	County Cost Group	\$419	\$308	\$303	\$270	10
ZZ700	County Cost Group	\$392	\$282	\$273	\$277	46
ZZ710	County Cost Group	\$407	\$296	\$290	\$284	53
ZZ720	County Cost Group	\$370	\$260	\$247	\$291	33
ZZ730	County Cost Group	\$466	\$355	\$354	\$299	10
ZZ740	County Cost Group	\$458	\$348	\$347	\$306	9
ZZ750	County Cost Group	\$460	\$350	\$349	\$313	8
ZZ760	County Cost Group	\$569	\$459	\$455	\$322	3
ZZ770	County Cost Group	\$413	\$303	\$297	\$330	1
ZZ780	County Cost Group	\$347	\$236	\$218	\$339	2
ZZ790	County Cost Group	\$391	\$281	\$272	\$349	1
ZZ800	County Cost Group	\$591	\$481	\$475	\$358	0
ZZ810	County Cost Group	\$368	\$258	\$244	\$368	1
ZZ820	County Cost Group	\$597	\$487	\$480	\$377	0
ZZ830	County Cost Group	\$629	\$519	\$507	\$387	0
ZZ840	County Cost Group	\$642	\$532	\$517	\$399	3
ZZ850	County Cost Group	\$655	\$545	\$527	\$408	0
ZZ860	County Cost Group	\$625	\$515	\$503	\$420	0
ZZ870	County Cost Group	\$680	\$570	\$546	\$432	0
ZZ880	County Cost Group	\$615	\$505	\$495	\$444	1
ZZ890	County Cost Group	\$706	\$596	\$564	\$456	1



## ALLOWANCES

### APPENDIX T—SERVICE EXAMPLES OF CONUS HIGH-COST OF LIVING AREAS

#### Contents:

Coast Guard letter, Subject: Request for Cost of Living Allowance for Personnel on Nantucket and Martha's Vineyard dated 11 December 1990. Enclosures to this letter are maintained in QRMC files.

Navy letter, Subject: Cost of Living Allowance-Metropolitan New York City and surrounding areas, dated 29 January 1991. Enclosures to this letter are maintained in QRMC files.

U.S. Department  
of Transportation  
United States  
Coast Guard

Commander  
Coast Guard Group

Woods Hole, MA 02543  
(508) 548 1700

4000  
11 Dec 90

From: Commander, Coast Guard Group Woods Hole  
To: Commandant, (G-PS)  
Via: Commander, First Coast Guard District (ap)

Subj: REQUEST FOR COST OF LIVING ALLOWANCE FOR PERSONNEL ON  
NANTUCKET AND MARTHA'S VINEYARD

Ref: (a) Joint Federal Travel Regulations, Section U9100

1. I request that the Coast Guard personnel attached to Station Brant Point (Nantucket Island), LORSTA Nantucket (Nantucket Island) and Station Menemsha (Martha's Vineyard Island) receive a cost of living allowance to help offset the prices encountered on the islands.

2. In September 1989 and July 1990 Group and District Command Enlisted Advisors (CEAs) visited both Nantucket and Martha's Vineyard to talk to the Coast Guard crews and their spouses. During these visits it became very evident that "our folks in the field" are having a tough time making ends meet. The figures in the enclosures illustrate what our people are up against.

3. Also, in September 1989 the CEAs did a cost comparison survey between island and mainland supermarkets. The survey items were again priced on the island in Oct/Nov 1990. The results are listed in enclosure (1) and the percentage differentials (using the Newport Commissary as base) are shown below.

Newport Navy Base (Newport, RI) .....	Baseline
Otis USCG Grocery Annex (Cape Cod, MA) .....	+17%
Angelo's Supermarket (Falmouth, Cape Cod, MA) .....	+22%
Nantucket and Martha's Vineyard .....	+31%

Note: Between 9/89 and 10/90 the total "Island" cost of the items shown in enclosure (1) increased 9%

4. Due to the high cost of living many members are forced to work part time and spouses full time (80% of the spouses work). This is not to allow for "extra" spending money, but just to afford the day-to-day necessities. Enclosure (2) shows a breakdown of working members and spouses.

5. Although I realize that "COLA" can only be granted outside CONUS, the people stationed on these sparsely populated islands need some type of financial assistance to improve their quality of life. I recommend seeking an amendment to reference (a) that would treat

Martha's Vineyard and Nantucket as OUTCONUS for cost of living purposes. In the meantime, I hope some type of intervention is available within the Coast Guard.

6. The Executive Petty Officer at Station Brant Point came from Alaska where he received "COLA". He was shocked to find the cost of living higher on Nantucket than in Alaska.

(Signed)  
A. J. PETTIT

Encl: (1) Supermarket Comparison and Graph  
(2) Member/Spouse Employment  
(3) Ferry Costs  
(4) Other Costs  
(5) Ltr of 26 Feb 90 from CDR Chadwick  
(6) Ltr of 6 Mar 90 from Charles Hopewood, A.C.S.W.  
(7) CG STA Brant Point ltr 4000 of 31 Oct 90  
(8) Champus Explanation of Benefits for Nantucket Spouse

Copy: CCCDONE (dcea)  
LORSTA Nantucket  
Sta Brant Point  
Sta Menemsha

DEPARTMENT OF THE NAVY

NAVAL STATION NEW YORK  
155 FRONT STREET  
STATEN ISLAND NEW YORK 10314-5044

11100  
Ser OOA/148  
JAN 29 1991

From: Commanding Officer, Naval Station New York  
To: Chief of Naval Operations, Military Advisory Panel Member, PDTATAC (OP-134C)  
Via: (1) Commander in Chief, U. S. Atlantic Fleet  
(2) Commander, Naval Surface Forces, U. S. Atlantic Fleet (NO)

Subj: COST OF LIVING ALLOWANCE - METROPOLITAN NEW YORK CITY AND  
SURROUNDING AREA

Ref: (a) NAVSTA New York ltr 11101 ser N4B/777 or 07 Jun 88

Encl: (1) Runzheimer International Cost of Living Analysis prepared for NAVSTA New  
York - April 1988  
(2) NAVSTA New York ltr 5760 ser N002/535 dtd 11 May 89  
(3) NAVSTA New York point paper on High Cost of Living in New York City and  
Surrounding Area dtd 24 January 1991

1. The cost of living in Metropolitan New York City and the surrounding areas continue to place an abnormal financial burden on all military personnel. This situation will have a negative impact on the hundreds of Navy families assigned to and supporting the new Surface Action Group (SAG) on Staten Island, New York. Without a pay differential for the area, the average navy family will be forced to expend up to one hundred and sixty-two percent more than their counterparts living under normal economic conditions.

2. The high cost of living in New York City has been well documented during the past few years as it relates to the military family. The cost of housing is the single greatest inequity caused by duty in NYC. To help alleviate this problem, Naval Station New York addressed the issue of Variable Housing Allowance in reference (a) receiving endorsements through CNO OP-134C. In February 1990 a joint service task force from NMPC OP-134 and OASD (NMPP) surveyed NYC recommending immediate assistance. In April 1990 an unprecedented raise in VHA was received giving the average E-1 through E-5 a one hundred dollar a month increase. In the OASD final report the task force further recommended the seventh quadrennial military review of personnel compensation study the feasibility of CONUS COLA for New York City.

3. Second only to housing as a major issue effecting all military regardless of marital status is transportation. As noted in enclosure (1), transportation for a family of 4 with an annual income of \$20,000 can cost up to 229.8% over the normal US City. This compares to a family in Norfolk, VA who spends 100.3%, and a family in Earle, NJ spend 202.3%. The major expense is automobile insurance and bridge tolls. Enclosure (2) attempted direct assistance from several military associated insurance companies. To date only GEICO continues a dialogue studying the issue by making no promises of help. A bridge toll initiative was started by a joint NYC/DOD cooperative through New York State legislation to relieve all military of bridge tolls in New York State while on official business. In meetings with legislators and key military members in New York, the bill was tailored to include only the

one major bridge linking US Army Ft Hamilton in Brooklyn, NY and Naval Station New York on Staten Island. This bill was tabled in the House Ways and Means Committee in June 1990. Further attempts to bring it up for a vote have failed.

4. As a comparison of the high cost of living, the following cost analysis from enclosure (1) is provided for a family of four with a \$20,000 income:

- a. RENTAL: (rent, insurance, utilities)  
(1) NYC 220.6%, Earle NJ 150.1%, NORVA 99.9%
- b. TRANSPORTATION: (including public commutation)  
(1) NYC 229.8%, Earle NJ 202.3%, NORVA 100.2%
- c. GOODS AND SERVICES:
  - (1) FOOD (home): NYC 108.2%, Earle NJ 100.2%, NORVA 99.5%
  - (2) FOOD (away): NYC 113.4%, Earle NJ 108.8%, NORVA 100.2%
  - (3) FURN & HSLD: NYC 102.9%, Earle NJ 93.1%, NORVA 99.3%
  - (4) CLOTHING AND DOMESTIC SERVICES:  
NYC 116.5%, Earle NJ 113.1%, NORVA 95.9%
  - (5) MEDICAL AND PERSONAL CARE:  
NYC 109.0%, Earle NJ 100.8%, NORVA 99.0%
- d. RECREATION: NYC 110.8%, Earle NJ 105.0%, NORVA 103.3%
- e. TAXATION:  
(1) NYC \$941, Earle NJ \$522, NORVA \$819, STD US City \$567
- f. TOTAL ANNUAL COSTS: 20K INCOME  
(1) NYC 162.2%, Earle NJ 129.5%, NORVA 101.4%  
(2) NYC \$32,436, Earle NY \$25,903, NORVA \$20,271

Enclosure (3) is provided as an actual monetary costs comparison.

5. There is an unprecedented need for a COST OF LIVING ALLOWANCE in New York City and Naval Weapons Station Earle NJ. Request support to establish a COLA during the current review of Military Personnel Compensation by OASD. Naval Station New York stands ready to assist in any effort to ease the financial burden on the sailors and marines in New York City and the surrounding area. Without some type of financial assistance for the military, it will be difficult to attract high quality personnel to the new home ports and the ships home ported in New York and New Jersey.

(Signed)  
C. H. GNERLICH

Blind Copy to:  
COMLANTAREA Cogard NY NY  
COMNAVBASE Philadelphia PA  
REDCOM Two  
COMLOGRON Two  
NAVRESSO Staten Island  
NAVWPNSTA Earle NJ  
First MCD Garden City LI NY  
CDRNYAC FT Hamilton NY  
NAVCRUITDIST New York NY

## ALLOWANCES

### APPENDIX U—SERVICE ASSIGNMENT DIFFICULTIES FOR HIGH-COST AREAS

The following subsections summarize input by service on assignment difficulties for high-cost areas. In general, specific data are not kept on the problems encountered or costs involved with assignments to *high-cost* areas.

#### ARMY

- Less than one percent refuse assignment to *high-cost* areas. Washington, Chicago, New York, Los Angeles, and San Francisco are the hardest to fill.

#### NAVY

- Moderate to extreme difficulty filling high-cost areas. Some billets may be gapped, occasionally impacting on a command's mission.
- With enlisted assignments, hardest sells are to E-5 and above, whose absence could affect leadership and supervisory duties.
  - Officer detailers estimate approximately ten percent would rather quit than transfer to a high-cost area.
  - Enlisted detailers estimate a separation rate between 5-40 percent.
  - Examples (officer): Medical detailers routinely go through the entire list of available officers before identifying an administrator who is willing to go to Washington. Nurse Corps and Medical Service Corps officers choose to separate rather than accept orders to high-cost areas.
  - Examples (enlisted): Enlisted recruiters in high-cost areas have the highest overall separation rate (one in three). Two cases involving DK1's (dispensing clerks) transferred to high-cost areas have reached flag and congressional level reviews. An SKCM billet in Philadelphia remained vacant for more than a year.
  - Hardest areas to fill are Staten Island, Brooklyn, Washington, Bayonne, Philadelphia, Great Lakes, San Diego, Long Beach, San Francisco, and Newport.

## AIR FORCE

- Consensus at all levels that high-cost of living has a significant impact on assignments, but the degree varies between officers and enlisted and the reasons are different.
  - Unable to provide the trend data to substantiate their contention of adverse impact.
  - Areas difficult to man are Washington, Boston, and Los Angeles.

## COAST GUARD

- Difficulty finding enough members, officer and enlisted, to accept orders to several high-cost areas.
  - No data kept on separations due to transfers to high-cost areas.
  - Examples: The majority of Marine Inspector billets in high-cost areas are filled with trainees with a corresponding drop in mission effectiveness in those areas. The twelve or more qualified inspectors contacted about the three Washington billets all turned the jobs down. Similar problems exist for other types of units (search and rescue stations, cutters, etc.).
  - The most difficult areas to fill are Boston, Nantucket/Martha's Vineyard, New London, Providence, Montauk, New York, Washington, Outer Banks, Ocracoke Island, South Florida including Key West, Los Angeles/Long Beach, and San Francisco/Alameda.

## MARINES

- Experiences greater difficulty finding personnel to accept orders to high-cost areas than to average- or lower-cost areas.
- 20 percent within the officer ranks decline assignments to high-cost areas and choose to separate from the service.
- Number of enlisted who separate under similar circumstances is small.
- The most difficult areas to fill are Washington, California, and Hawaii.

18 June 1991

MEMORANDUM FOR EXECUTIVE DIRECTOR, SEVENTH QUADRENNIAL REVIEW OF  
MILITARY COMPENSATION

SUBJECT: CONUS Cost of Living Adjustment for High Cost Areas

The following comments are provided to help the QRMCM committee in determining if there is a correlation between assignment difficulties and high cost areas.

a. Generally speaking the Army does not have any difficulty in assigning soldiers to high cost areas. Less than 1% of officers refuse assignments to high cost areas. This normally occurs because the officer does not believe such an assignment is in his best professional interest (i.e., he prefers an assignment "with troops"). Army missions have not been adversely affected because the assignment is located in a high cost area.

b. If given a choice between a high cost area and a less expensive location, members would opt for the cheapest location. On balance, it is probably easier to find soldiers to go to cheaper areas.

c. Washington, Chicago, New York, Los Angeles and San Francisco are the more difficult assignments to fill.

d. Less than 1% decline assignment to high cost areas and choose to separate from the Army. This is a function of the personnel assignment policies. If a member does not have extenuating circumstances, he/she must accept the assignment or request release from active duty.

e. The only incidents that appear to effect assignments to high cost areas are medical requirements of family members (i.e., a family member(s) seeing or receiving specialized care from a particular institution and the attending physician/institution requests that the dependents remain at the old duty location.

My point of contact for this issue is MAJ Tom Turner, 695-5654.

(Signed)  
DUANE G. INGALSBE  
Colonel, GS  
Chief, Program, Budget and  
Compensation Policy Division

NOTE: These comments were released in the form of a memorandum to the Seventh Quadrennial Review of Military Compensation (7<sup>th</sup> QRMCM) dated June 18, 1991.



JUL 1 1991

MEMORANDUM FOR THE DIRECTOR, RESEARCH AND ANALYSIS, 7<sup>th</sup> QRM

Subj: RESEARCH FOR CONUS COST OF LIVING ADJUSTMENT FOR HIGH COST AREAS - INFORMATION MEMORANDUM

RESPONSES TO QUESTIONS CONCERNING DETAILING TO HIGH COST AREAS

a. Question: How hard is it for your Service to get personnel to accept assignments to high cost areas? Has it ever impacted unfavorably on a specific mission?

Answer: Navy members resist being transferred to certain high cost areas. Pers-40 reports an overall moderate to extreme level of difficulty with such assignments. See section c. below for specific areas. Some billets at some commands may be gapped because detailer has trouble filling them. These gaps occasionally impact on a command's mission. In the case of enlisted assignments, mission effectiveness is impacted because the hardest sells are to E-5 and above, whose absence could affect leadership and supervisory duties.

b. Question: In general, does your Service experience greater difficulty in finding personnel to accept orders to high cost areas than to average or lower cost areas?

Answer: Yes. Most resistant are O-4 and below at the officer level and E-5 and above at the enlisted level.

c. If so, what are these areas/bases that are most difficult to fill assignments?

Answer: Staten Island and Brooklyn, NY  
Washington, DC (and surrounding MD/VA area)  
Bayonne, NJ  
Philadelphia, PA  
Great Lakes, IL  
San Diego, Long Beach, San Francisco (Bay area), CA  
Pearl Harbor, HI  
Newport, RI

d. Question: How many (%) decline assignments to high cost areas and choose to separate from the service?

Answer: In general, specific statistics are not monitored. Pers-41 estimates approximately 10% of its personnel would rather quit than transfer to a high cost area. Pers-40 estimates a separation rate between 5% and 40%, depending on the area and the rating being assigned. Also according to Pers-40, enlisted personnel assigned to recruiting in high cost areas have the highest overall separation rate, with one of three separating from service. Additionally the impact is felt primarily in the

RESPONSES TO QUESTIONS CONCERNING DETAILING TO HIGH COST AREAS  
(continued)

amount of time and effort a detailee must spend trying to fill these billets without completely ignoring a member's personal or career desires.

e. Question: Are there examples of specific incidents that would illustrate assignment difficulties to high cost areas? (i.e., a detailee going down a long list of personnel before finding an individual who would accept the orders.).

Answer: The Medical Service Corps reports that its detailers routinely go through the entire list of available officers before identifying a Health Care Administrator who is willing to go to Washington, DC. Although figures are not available, Pers-4415 reports that Nurse Corps and Medical Service Corps officers choose to separate rather than accept orders to high cost areas. Pers-4410 reports that the Cryptologic Junior Officer detailee offered the Ship Electronic Warfare Officer billet in USS NORMANDY (homeport: Staten Island) to four Chief Warrant Officers, one of whom chose to resign rather than accept the billet. The billet was eventually filled by a newly commissioned CWO2, who, in the hard reality of detailing, had no other option than to accept. The Supply Corps reports that a number of hard-to-fill junior officer billets are filled with ensigns. The command must trade off the experience of a more senior officer with having a billet filled.

On the enlisted side, two recent cases involving DK1's have reached flag and congressional level review. One was scheduled to transfer from Bermuda to Newport; the second didn't feel he could afford to live in Scotia, NY, with five dependents. In a separate case, an SKCM billet in Philadelphia remained vacant for more than a year.

(Signed)  
T.H. REYNOLDS, JR.  
Head, Military Compensation  
Policy Branch

NOTE: These comments were released in the form of a memorandum to the Seventh Quadrennial Review of Military Compensation (7<sup>th</sup> QRMC) dated July 1, 1991.

BACKGROUND PAPER  
ON  
IMPACT OF HIGH COST AREAS ON ASSIGNMENT SELECTION

- The purpose of this paper is to provide some background on the impact on the military assignment process of assignment of members to high cost areas in comparison to average or low cost areas.
- No definition of *high-cost* exits. However, we hear the term used not only to describe areas (CONUS and overseas) where average living expenses exceed military income, but also in relation to a number of average or low cost areas where a lack of family support facilities, a high crime rate, inadequate schools, or other factors, translate to increased costs to a member to offset these circumstances.
- There is a consensus at all levels that high-cost of living has a significant impact on assignments, but the degree varies between officers and enlisted and the reasons are different.
  - Aside from the obvious disparity of income versus cost of living, we are unable to provide the trend data to substantiate our contention of adverse impact.
    - Statistics are not maintained showing the specific reason a member refused an assignment.
    - Liberal extension of tours of personnel assigned to hard to man areas reduces the frequency of replacement and, in turn, the number of refusals.
    - When personal contact with a prospective assignee indicates they will separate/retire rather than volunteer for an assignment, that person is often not considered further; this is especially true for assignment of officers and senior enlisted members.
    - Because of the career enhancing potential of certain assignments in high-cost areas, members may subordinate their *quality of life* concerns and volunteer for such assignments.
    - Because some members work two jobs and/or their spouse works, or they take residence with family in the area, and so on, members find different ways to *survive*.
    - Generally, the number of those who separate/retire in lieu of a high-cost area assignment is only slightly higher in comparison to other areas (about 5 to 10 percent). But, in view of the actions routinely taken to reduce the turn down rate, this ratio is not a true indication of impact.
- We cannot cite any instances where refusal of assignment(s) to a high-cost area has unfavorably affected a specific mission.

- This is because alternative management action such as grade substitution, etc. or, as a last resort, TDY manning assistance, is taken rather than allow a mission to be degraded.
- Historically, difficulty is encountered in assigning personnel to the kinds of areas below; it becomes especially difficult when two or more factors are combined at a single location.
  - Locations lacking military family support facilities (adequate military housing, commissary, BX, medical, and so on).
  - Large metropolitan areas (especially those noted for long commuting distances to affordable housing and an acceptable quality of living environment).
  - Undesirable geographical locations (especially those with undesirable climates).
- Some generally recognized areas which are expensive and difficult to man are Washington, D.C., Boston, Los Angeles and overseas, Hawaii and Japan.
  - It must be noted that there are certain duties which expose members to high-cost environments, for example, recruiting, Military Entrance Processing stations, and the like.
- Some average to low cost areas which are normally more difficult to man are Minot AFB, Ellsworth AFB, Altus AFB, Cannon AFB and some overseas locations are Turkey, Panama, some locations in Italy and Korea.
  - Again, certain duties are more difficult to fill than others, for example, some attache assignments which have a one year language training requirement followed by assignment to an undesirable or politically unstable area.
- While much time and effort is expended to avoid high-cost assignment *horror stories*, sometimes extreme situations cannot be precluded. It is not always numerous relevies which reveals how an area is regarded.
  - For example, an enlisted member in the CONUS may complain regarding their selection for an overseas short tour because a member with a similar tour history was extended one year at the Pentagon. We offer the CONUS member the opportunity for a Pentagon assignment, but they respond they'd rather take a one year unaccompanied tour than be assigned to the Pentagon for 4 years and relocate their family to Washington, DC.

Certain average or low cost areas have earned the reputation of being as difficult to man as some high-cost areas.

- Recently 7 aircraft commanders chose to 7-day opt rather than accept assignment to Minot AFB, North Dakota.

As shown above, the numbers of those who retire or separate and the difficulty of staffing high-cost areas cannot be easily quantified. Nonetheless, high-cost areas remain a significant morale and economic factor to those actually selected for such assignment and also affects those who see others selected.

On numerous occasions the assignment system has been challenged to find possible ways assignment policies could be altered to fix these problems. A fair way has yet to be found to transfer the burden of such assignments from one undeserving member to another.

Since the high-cost problem is basically one of economics, we believe it is both timely and appropriate that direct action be taken towards an economic solution. We believe strongly that the true cost of such assignments should be acknowledged and members directly compensated accordingly.

Note: These comments were released in the form of a Talking Paper from AF/DPXEC to the 7QRMCM, dated 24 Jun 91.

26 JUN 1991

MEMORANDUM FOR THE DIRECTOR, RESEARCH AND ANALYSIS, 7<sup>th</sup> QRMCMC

Subj: U.S. COAST GUARD HIGH COST AREA PAY INPUT ASSIGNMENT  
DIFFICULTY

1. Both officer and enlisted assignment personnel reported difficulty finding enough members to accept orders to several high cost CONUS areas. This has specifically hurt the Coast Guard's Marine Safety mission. Coast Guard marine inspectors, who enforce marine safety laws and regulations on foreign and U.S. flag commercial vessels entering U.S. ports, are concentrated in major U.S. ports, which are of the high cost areas. CG warrant officers in the marine inspection field consistently request assignment to the lower cost areas. This, combined with a shortage of qualified marine inspector billets in major ports with trainees with a corresponding drop in mission effectiveness in those areas. Similar problems exist for other types of units (Search and Rescue Stations, Cutters, etc.) in these same areas and for enlisted members as well as officers.
2. The following CONUS high cost areas listed (in geographic order) by CG assignment personnel as the most difficult locations to fill (\* indicates resort areas where significant seasonal cost of living changes occur):
  - a. Boston, MA area
  - b. Nantucket/Martha's Vineyard, MA\*
  - c. New London, CT/Providence RI
  - d. Montauk, NY (Long Island)\*
  - e. New York, NY (available CG housing offsets cost and improves desirability somewhat)
  - f. Washington, DC
  - g. Ocracoke Island/Outer Banks, NC\*
  - h. South Florida (Fort Lauderdale, Miami, & Florida Keys, including Key West)
  - i. Los Angeles/Long Beach area
  - j. Alameda/San Francisco area
3. CG assignment personnel believe this may expand as DoD base closures occur. A number of CG assignment locations depend on DoD base housing to reduce the impact of high local living costs. As a general rule, areas adjacent to the above listed areas are susceptible to assignment problems due to high cost of living if government housing for CG members is lost due to DoD base closure.
4. CG assignment personnel could not provide any statistics concerning percentages or numbers of declined assignments to high cost areas and voluntary separation from the Service for this reason.
5. The marine inspector assignment of officers cited Washington, DC (all three inspectors not qualified), New York (15 marine inspectors billets, very few qualified) and Boston (12 marine inspector billets, very few qualified) as major assignment problem areas due to the cost of living in these areas. Because of the futility of asking senior (qualified by retirement eligible) warrant officers to accept these high cost assignments, the assignment officer spends only a

limited amount of time looking for qualified inspectors for these areas. The 12 or more qualified inspectors contacted about the three Washington, DC billets all turned the jobs down.

6. If you have additional questions, my point of contact for this issue is LT Jim Sartucci, (202) 267-2210.

(Signed)  
J.R. DOPLER  
Assistant Chief  
Compensation Management Branch

NOTE: These comments were released in the form of a memorandum to the Seventh Quadrennial Review of Military Compensation (7<sup>th</sup> QRMCM) dated June 26, 1991.

5000  
MMOS  
11 JUL 1991

PERSONNEL MANAGEMENT DIVISION COMMENT on MPP-51 route sheet of  
17 JUN 1991

Subj: QPMC REQUEST: DETAILING TO HIGH COST AREAS

1. Listed below are our responses to the questions posed by the QPMC:

a. How hard is it for your Service to get personnel to accept assignment to high cost areas? Has it ever impacted unfavorably on a specific mission? It is difficult for all grades, but greater difficulty exists among the junior grades. To our knowledge, this difficulty has not impacted unfavorably on specific mission.

b. In general, Does your Service experience greater difficulty in finding personnel to accept orders to high cost areas than to average or lower cost areas? Yes.

c. If so what are these areas/bases that are most difficult to fill assignments? Washington, DC; California; and Hawaii.

d. How many (%) decline assignments to high cost areas and choose to separate from Service? 20% within the officer ranks. There is no definite number/percentage available for the enlisted ranks; however, the number of enlisted Marines who actually decline assignments to high cost areas and choose to separate is small.

e. Are there examples of specific incidents that would illustrate assignment difficulties to high cost areas? (i.e. a monitor going down a long list of personnel before finding an individual who would accept the orders). There are no examples of specific incidents within the enlisted assignment process. However, there are examples within the officer assignments, for example; (1) PCSO to Hawaii, the concerns are the high cost of renting or buying adequate quarters, and where schools for dependents are not adequate, the cost of private schools.

(Signed)  
O.W. McCORMACK  
Colonel, U.S. Marine Corps  
Deputy Director  
Personnel Management Division

NOTE: These comments were released in the form of a letter to the Seventh Quadrennial Review of Military Compensation (7<sup>th</sup> QPMC) dated July 11, 1991.



## ALLOWANCES

### APPENDIX V—BASE INFRASTRUCTURE ACCOUNTING METHODOLOGY

Table V-1 is an example of the methodology used to account for the savings attributable to the availability of commissaries, base or post exchanges, and medical facilities.

Section V-2 is a detailed description of medical costs and ratios developed to account for access to military hospitals and clinics.

**Table V-1.** Example of the methodology used to account for the savings attributable to the availability of commissaries, base or post exchanges, and medical facilities.

MHA	Location	State	Goods & Services	Commissary		Exchange				Medical				Exch	Hosp	Clin	Deduction
				Food at Home	Miscellaneous	Furnishing	Clothing	Personal Care	Miscellaneous	Comm	Exch						
Standard																	
	City		\$8,666	\$2,593.73	\$226.18	\$1,259.17	\$1,054.65	\$281.65	\$259.11	\$760.87	1	1	1	0			\$1,072
ND192	Minot AFB	ND		92.93%	106.34%	95.43%	92.38%	94.34%	92.21%	92.10%	1	1	1	0			\$1,001
TX285	San Antonio	TX		92.62%	105.28%	95.54%	85.76%	87.79%	95.00%	94.30%	1	1	1	0			\$1,000
NY349	Westchester	NY		114.91%	106.83%	105.94%	110.38%	109.11%	111.06%	114.69%	1	1	1	0			\$1,212

**Assumptions:**

- Facility is considered available if within how many miles: 40
- Savings realized on food purchased at commissary: 25%
- Commissary utilization when available: 64%
- Savings realized on furnishings, clothing, personal care items purchased at exchange: 23%
- Exchange utilization when available: 39%
- Savings realized on medical costs when a Uniformed Services hospital is available: 48%
- Savings realized on medical costs when a Uniformed Services clinic is available in lieu of a hospital: 26%
- Uniformed Services hospital and clinic utilization: 100%

Listed next to Standard City are the actual dollar amounts that a typical household with \$30,000 income spends annually on the listed goods and services. The lines below Standard City reflect, as a percentage of Standard City costs, what the same market basket of goods and services would cost in respective MHAs. As an example, the Food at Home cost in Minot would be 92.93% (or \$2,410) of the Standard City Food at Home cost. Likewise, the Miscellaneous commissary-type purchases in Minot would cost \$240 (1.0634 x \$226). Now a deduction can be made from the Minot cost-of-living based on the availability of a commissary.

$$\begin{aligned}
 \text{Commissary deduction amount} &= (\text{total spent on commissary purchases}) \times (\text{commissary savings}) \times (\text{commissary utilization}) \\
 &= (\$2,410 + \$240) \times (.25) \times (.64) \\
 &= \$424
 \end{aligned}$$

Similar deductions are made depending on the type of military facility present and whether an exchange is available. Because facilities are available at most duty locations, a deduction is made to the Standard City cost-of-living. For specific MHAs, a "1" indicates that the facility is available and a "0" indicates a facility is not available.

## SECTION V-2

# METHODOLOGY TO ACCOUNT FOR AN AREA'S COST OF LIVING BASED UPON THE PRESENCE OR ABSENCE OF MILITARY MEDICAL TREATMENT FACILITIES

## INTRODUCTION

Albright and his associates have reported that the presence or absence of military medical treatment facilities (MTFs) affects the level of health care expenses incurred by beneficiaries of the military health services system (MHSS).<sup>1</sup> Thus, it seemed prudent to incorporate this effect into any adjustments to an area's cost of living (COL).

## CALCULATION OF HEALTH CARE EXPENSES

### Outpatient Care

Albright *et al.* reported that MHSS beneficiaries who received care from MTFs of the uniformed services averaged \$48 a quarter in outpatient costs.<sup>2</sup> To obtain the average cost per year in 1990 constant dollars, the \$48 per quarter value was first multiplied by 4 to convert dollars per quarter to dollars per year. It was then multiplied by a factor of 1.238 to convert 1984 dollars to 1990 constant dollars using implicit price inflators for the gross national product (GNP).<sup>3</sup> Thus, to find the average annual cost of care for beneficiaries who received their care from military MTFs, the calculation is:

$$\$48/\text{quarter} \times 4 \text{ quarters/year} \times 1.238 (1984 \rightarrow 1990) = \$238 \text{ per year}$$

They also noted that families that lived outside catchment areas reported average outpatient costs three times as high as families that lived in catchment areas.<sup>4</sup> Thus, the cost obtained in the preceding paragraph is multiplied by three to determine the average cost of care for beneficiaries who did not receive care from military MTFs:

$$\$238/\text{year} \times 3 = \$714 \text{ per year}$$

---

<sup>1</sup>William H. Albright, *A Reference Guide to the 1984 Military Health Services System Beneficiary Survey*, Arlington, VA: Systems Research and Applications Corporation, December 1984.

<sup>2</sup>*Ibid.*, VI-3.

<sup>3</sup>U.S. Office of Management and Budget, *Economic Report of the President*, Washington, 1991, 290.

<sup>4</sup>William H. Albright, *A Reference Guide to the 1984 Military Health Services System Beneficiary Survey*, VI-3.

### **Inpatient Care**

Albright *et al.* reported that MHSS beneficiaries who received care from MIFs of the uniformed services averaged \$171 in inpatient costs.<sup>5</sup> To obtain the average cost per year in 1990 constant dollars, the \$171 was multiplied by a factor 1.238 as discussed above for outpatient care:

$$\$171/\text{year} \times 1.238 (1984 \rightarrow 1990) = \$212 \text{ per year}$$

They further noted that inpatient costs generally followed the same pattern as outpatient costs—that is they were three times as high for families that did not live within catchment areas.<sup>6</sup> Thus:

$$\$212/\text{year} \times 3 = \$636 \text{ per year}$$

### **Dental Care**

Albright *et al.* reported that the average beneficiary incurred \$125 per year in dental expenses.<sup>7</sup> To obtain the cost in 1990 constant dollars, this amount was multiplied by a factor of 1.238 as discussed for outpatient care:

$$\$125/\text{year} \times 1.238 (1984 \rightarrow 1990) = \$155 \text{ per year}$$

### **Medical Insurance**

Albright *et al.* reported that beneficiaries spent an average of \$187 per year for medical insurance.<sup>8</sup> To obtain the cost in 1990 constant dollars, this amount was multiplied by a factor of 1.238 as discussed for outpatient care:

$$\$187/\text{year} \times 1.238 (1984 \rightarrow 1990) = \$232 \text{ per year}$$

### **Dental Insurance**

Albright *et al.* reported that beneficiaries spent an average of \$97 per year for dental insurance.<sup>9</sup> To obtain the cost in 1990 constant dollars, this amount was multiplied by a factor of 1.238 as discussed for outpatient care:

$$\$97/\text{year} \times 1.238 (1984 \rightarrow 1990) = \$120 \text{ per year}$$

---

<sup>5</sup>William H. Albright, *A Reference Guide to the 1984 Military Health Services System Beneficiary Survey*, VI-3.

<sup>6</sup>*Ibid.*

<sup>7</sup>*Ibid.*

<sup>8</sup>*Ibid.*

<sup>9</sup>*Ibid.*

### Costs of Health Care When Neither Hospitals Nor Clinics of the Uniformed Services Were Available

The results of individual calculations shown above, when beneficiaries received no care from MTFs of the uniformed services, were summed:

$$\$714/\text{year} + \$636/\text{year} + \$155/\text{year} + \$232/\text{year} + \$120/\text{year} = \$1,857 \text{ per year}$$

### Costs of Health Care When Hospitals of the Uniformed Services Were Available

The results of individual calculations shown above, when beneficiaries lived in hospital catchment areas—and both inpatient and outpatient care were available—were summed:

$$\$238/\text{year} + \$212/\text{year} + \$155/\text{year} + \$232/\text{year} + \$120/\text{year} = \$975 \text{ per year}$$

### Costs of Health Care When Clinics, but not Hospitals, of the Uniformed Services Were Available

The results of individual costs calculated when beneficiaries received their outpatient care from MTFs of the uniformed services were added to costs calculated when beneficiaries did not receive any of their inpatient care from MTFs of the uniformed services:

$$\$238/\text{year} + \$636/\text{year} + \$155/\text{year} + \$232/\text{year} + \$120/\text{year} = \$1,381 \text{ per year}$$

### Summary of Health Care Costs

Table V-2 provides a summary of the costs calculated above. As can be seen, the cost of health care received from sources other than MTFs of the uniformed services is almost twice as high as that when all care is available from MTFs of the uniformed services. When

**Table V-2. Health Care Costs, by Source of Care, in 1990 Constant Dollars**

Category of Care	Uniformed Services Hospital or Clinic Not Available	Uniformed Services Hospital Available	Uniformed Services Clinic (No Hospital) Available
Inpatient Care	\$636	\$212	\$636
Outpatient Care	734	238	238
Dental Care	155	155	155
Medical Insurance	232	232	232
Dental Insurance	120	120	120
Totals	\$1,857	\$957	\$1,381

\* Beneficiary did not live in catchment area (within 40 miles of a MTF) of either a hospital or clinic of the uniformed services. Neither inpatient nor outpatient care was available from the direct care system.  
\*\* Beneficiary lived within catchment area (within 40 miles of MTF) of a hospital of the uniformed services. Both inpatient and outpatient care were available from the direct care system.  
\*\*\* Beneficiary lived within catchment area (within 40 miles of MTF) of a clinic of the uniformed services. Outpatient care, but no inpatient care, was available from the direct care system.  
Source of original data: William H. Albright *et al.* *A Reference Guide to the 1984 Military Health Services System Beneficiary Survey*. Arlington, VA: Systems Research and Applications Corporation, December 1984, VI-3.

outpatient, but no inpatient care is available from MTFs of the uniformed services, the cost is a little over a third less than when all care is available from MTFs of the uniformed services.

#### **MECHANISM FOR ADJUSTMENT OF AREA COST OF LIVING**

Separate indexes were developed for each of three scenarios: (1) when all care was available from the direct care system—beneficiary lived within catchment area of a hospital; (2) when only outpatient care was available from the direct care system—beneficiary lived within catchment area of a clinic; and (3) when no care was available from the direct care system—patient lived outside of both hospital and clinic catchment areas.

##### **No Care Available from the Direct Care System**

An index of one was used if no care was available from the direct care system.

##### **Outpatient Care Available from the Direct Care System**

The average cost, when outpatient care was available from the direct care system—\$1,381—was divided by the average cost when no care was available from the direct care system—\$1,857:

$$(\$1,381/\text{year})/(\$1,857/\text{year}) = 0.744$$

Beneficiaries thus saved approximately 26 percent in health care costs when outpatient care was available from the direct care system.

##### **All Care Available from the Direct Care System**

The average cost, when all care was available from the direct care system—\$957—was divided by the average cost when no care was available from the direct care system—\$1,857:

$$(\$957/\text{year})/(\$1,857/\text{year}) = 0.515$$

Beneficiaries thus save approximately 48 percent in health care costs when both inpatient and outpatient care was available from the direct care system.

##### **Use of the Indexes**

The indexes are multiplied by the average cost of health care obtained from purely civilian sources. These products provide estimates of average costs incurred by beneficiaries of the MHSS and reflect the effects of the presence of different levels of MHSS capabilities.

Thus, for example, if no MHSS MTFs were present in a locality, the average cost of civilian health care would be multiplied by 1.0 and the average costs would be the same. If, however, a MHSS hospital were present in the area, the average cost of civilian health care would be multiplied by 0.515. The average costs for MHSS beneficiaries would then be 51.5 percent of the average cost of civilian health care, reflecting a savings of about 48 percent in health care costs.

## Costs of Civilian Health Care

The Bureau of the Census reported that expenditures for health care averaged \$1,295 per year<sup>10</sup> per consumer unit. As might be expected, expenditures varied by the size of the consumer unit, the age of the *referenced person*, the region of the country in which the individual or family resided, and individual and family income. The lowest expenditures were found for individuals under the age of 25 (\$386 per year), with the highest for those in the 65-74 year-old range (\$1,926 per year). Similarly, consumer units composed of only one person (\$793 per year) experienced lower costs than those composed of more than one individual, with the highest expenditures found in consumer units composed of five persons (\$1,464 per year). Consumer units living in the South (\$1,374 per year) and the West (\$1,314 per year) had the highest costs, while those living in the Northeast (\$1,199 per year) and Midwest (\$1,254 per year) had the lowest. When income was taken into account, the lowest health care expenditures were found in the lowest 20 percent of incomes (\$1,978 per year), while the highest were found in the highest 20 percent of incomes (\$1,738 per year).<sup>11</sup>

Runzheimer International provided a series of cost-of-living indexes, by geographic area that are useful in controlling for geographical differences in health care expenditures.<sup>12</sup> They estimated that a family of four, earning \$30,000 in annual income, spent approximately \$790 per year on medical goods and services.<sup>13</sup> This amount excluded expenditures for health care insurance which would have added an additional 33 percent to the annual cost.<sup>14</sup>

Runzheimer's estimates of health care expenditures are significantly lower than those reported by the Bureau of the Census for consumer units of four members. This may be explained in large part by the differences in income levels used as the basis for the expenditures. While Runzheimer used an annual income of \$30,000 for this group, the Bureau of the Census reported almost \$43,680<sup>15</sup> per year.<sup>16</sup>

---

<sup>10</sup>In 1990 constant dollars.

<sup>11</sup>U.S. Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States, 1990* (The National Data Book), 110th Edition, Washington, January 1990, 99.

<sup>12</sup>Runzheimer and Company, *The Runzheimer Plan of Living Cost Standards* (Provided to Systems Research and Applications Corporation of Arlington, VA), Rochester, WI: Runzheimer International, March 1991.

<sup>13</sup>Runzheimer and Company, *Runzheimer International Cost of Living Indexes: Goods and Services—Medical* (Provided to 7<sup>th</sup> QRMCI), Rochester, WI: Runzheimer International, April 24, 1991, Table VI, 7.

<sup>14</sup>U.S. Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States, 1990*, 99.

<sup>15</sup>In 1990 constant dollars.

<sup>16</sup>U.S. Department of Commerce, Bureau of the Census *Statistical Abstract of the United States, 1990*, 442.

# ALLOWANCES

## APPENDIX W—84 RANDOMLY SELECTED SURVEY AREAS

Military Housing			Military Housing		
#	Area Code	Location	#	Area Code	Location
1	KY110	Ft Knox, KY	43	ID087	Pocatella, ID
2	DE054	Dover AFB, DE	44	IA082	Des Moines, IA
3	WY324	Cheyenne, WY	45	WI319	Oshkosh/Appleton, WI
4	SC263	Sumter/Shaw AFB, SC	46	GA071	Atlanta, GA
5	AL002	Ft Rucker, AL	47	MI145	Sault Ste Marie, MI
6	KY109	Louisville, KY	48	WI316	Madison, WI
7	MO163	Ft Leonard Wood, MO	49	NY215	Ballston Spa, NY
8	IL093	Scott AFB, IL	50	IL335	Springfield/Decatur, IL
9	KS102	Ft Leavenworth, KS	51	SC261	Greenville, SC
10	KY107	Lexington, KY	52	CA028	Ft Irwin, CA
11	AL005	Montgomery, AL	53	PA249	NAS Willow Grove, PA
12	OK235	Altus AFB, OK	54	CO047	Ft Collins, CO
13	AR010	Little Rock, AR	55	NC184	Greensboro, NC
14	TX285	San Antonio, TX	56	OH232	Toledo, OH
15	CO046	Colorado Springs, CO	57	OH233	Youngstown, OH
16	MO162	Whiteman AFB, MO	58	MI154	Grand Rapids, MI
17	IN094	Ft Harrison, IN	59	CA032	Twentynine Palms, CA
18	FL056	Eglin AFB, FL	60	PA252	State College, PA
19	VA298	Norfolk/Portsmouth, VA	61	AL008	Tuscaloosa, AL
20	KY106	Ft Campbell, KY	62	WV321	Sugar Grove, WV
21	FL066	Tampa, FL	63	VA295	Charlottesville, VA
22	TX288	Wichita Falls/Sheppard AFB, TX	64	FL397	Polk County, FL
23	FL058	Jacksonville, FL	65	IN337	Evansville, IN
24	MS168	Gulfport, MS	66	PA255	Allentown/Bethlehem, PA
25	MS169	Columbus, MS	67	CA025	Venture, CA
26	MD131	Ft Ritchie, MD	68	FL057	Gainesville, FL
27	NM206	Albuquerque/Kirtland AFB, NM	69	NM208	Gallup, NM
28	OH229	Cleveland, OH	70	WV360	Beckley, WV
29	NY226	Binghamton/Ithaca, NY	71	ME390	Bangor, ME
30	AZ016	Yuma, AZ	72	VA304	Wallops Island, VA
31	MD127	Aberdeen Proving Grnds, MD	73	WV320	Morgantown, WV
32	AZ015	Davis-Monthan AFB, AZ	74	MO161	St Louis, MO
33	GA080	Ft Stewart, GA	75	NY216	Buffalo, NY
34	TN354	Manchester/Tullahoma, TN	76	CA036	Travis AFB, CA
35	TX289	Beeville, TX	77	TN269	Nashville, TN
36	ND189	Fargo, ND	78	AZ017	Mavajo County, AZ
37	GA073	Ft Gordon, GA	79	MI341	Fling, MI
38	CA392	San Luis Obispo, CA	80	WA313	Yakima, WA
39	NY222	Griffiss AFB, NY	81	WA315	Aberdeen, WA
40	PA383	Johnstown, PA	82	WA307	Everett, WA
41	NY225	Ft Drum/Watertown, NY	83	TX277	Dallas S2, TX
42	FL328	Avon Park/Sebring, FL	84	CA018	Oakland, CA



## ALLOWANCES

### APPENDIX X—COST-OF-LIVING DATA

Table X-1 is the adjusted cost-of-living data as compared to standard city. The table lists the areas surveyed by Runzheimer International and includes whether base infrastructure was ("1") or was not ("0") available; the adjusted cost-of-living; and how this data compares to the adjusted standard city.

Table X-2 is the unadjusted cost-of-living by category. Data was collected by Runzheimer International and are based on a \$30,000 annual income and a family size of four.

Table X-1. Adjusted cost-of-living data as compared to standard city

MHA	Location	State	Infrastructure				Personnel			Adjusted COL	CONUS COLA Index
			Comm	Exc	Hosp	Clin	DoD	DoT	Total		
ND192	Minot AFB	ND	1	1	1	0	0	0	0	\$17,576	0.9513660
MT175	Malstrom AFB	MT	1	1	1	0	0	0	0	\$17,595	0.9523914
KY110	Ft Knox	KY	1	1	1	0	0	0	0	\$17,900	0.9688889
IA082	Des Moines	IA	1	1	1	0	0	0	0	\$17,911	0.9695190
DE054	Dover AFB	DE	1	1	1	0	0	0	0	\$17,938	0.9709452
WY324	Cheyenne	WY	1	1	1	0	0	0	0	\$17,979	0.9731718
NC182	Ft Bragg/ Pope AFB	NC	1	1	1	0	0	0	0	\$18,053	0.9771800
SC263	Sumter/Shaw AFB	SC	1	1	1	0	0	0	0	\$18,060	0.9775500
AL001	Anniston	AL	1	1	1	0	0	0	0	\$18,060	0.9775774
NE192	Offutt AFB	NE	1	1	1	0	0	0	0	\$18,061	0.9775907
AL002	Ft Rucker	AL	1	1	1	0	0	0	0	\$18,094	0.9794245
KY109	Louisville	KY	1	1	1	0	0	0	0	\$18,113	0.9804291
SD264	Ellsworth AFB	SD	1	1	1	0	0	0	0	\$18,150	0.9824260
SC262	Myrtle Beach AFB	SC	1	1	1	0	0	0	0	\$18,161	0.9830282
MO163	Ft Leonard Wood	MO	1	1	1	0	0	0	0	\$18,165	0.9832230
IL093	Scott AFB	IL	1	1	1	0	0	0	0	\$18,178	0.9839409
SC258	Hilton Head Island	SC	1	1	1	0	0	0	0	\$18,180	0.9840620
KS101	McConnell AFB	KS	1	1	1	0	0	0	0	\$18,203	0.9852874
KS102	Ft Leavenworth	KS	1	1	1	0	0	0	0	\$18,204	0.9853444
KY107	Lexington	KY	1	1	0	1	0	0	0	\$18,227	0.9866009
SC259	Charleston	SC	1	1	1	0	0	0	0	\$18,249	0.9877700
PA247	Carlisle Barracks	PA	1	1	0	1	0	0	0	\$18,258	0.9883056
UT291	Hill AFB	UT	1	1	1	0	0	0	0	\$18,262	0.9884894
AL005	Montgomery	AL	1	1	1	0	0	0	0	\$18,276	0.9892728
VT305	Burlington	VT	1	1	1	0	0	0	0	\$18,294	0.9902087
OK235	Altus AFB	OK	1	1	1	0	0	0	0	\$18,317	0.9914751
IL366	Joliet Army Depot	IL	1	1	1	0	0	0	0	\$18,317	0.9914883
AR010	Little Rock	AR	1	1	1	0	0	0	0	\$18,319	0.9915710

Table X-1 Continued

MHA	Location	State	Infrastructure				Personnel			Adjusted COL	CONUS COLA Index
			Comm	Exc	Hosp	Clin	DoD	DoT	Total		
OH231	Wright-Patterson AFB	OH	1	1	1	0	0	0	0	\$18,324	0.9918337
TX285	San Antonio	TX	1	1	1	0	0	0	0	\$18,336	0.9924918
CO046	Colorado Springs	CO	1	1	1	0	0	0	0	\$18,350	0.9932492
VA300	Petersburg/Ft Lee	VA	1	1	1	0	0	0	0	\$18,370	0.9943344
MO162	Whiteman AFB	MO	1	1	1	0	0	0	0	\$18,371	0.9943735
PA254	Wilkes-Barre/Scranton	PA	1	1	0	1	0	0	0	\$18,378	0.9947512
IN094	Ft Harrison	IN	1	1	1	0	0	0	0	\$18,384	0.9951230
FLO56	Eglin AFB	FL	1	1	1	0	0	0	0	\$18,405	0.9962152
VA301	Richmond	VA	1	1	1	0	0	0	0	\$18,407	0.9963371
ME140	Bar Harbor/SW Harbor	ME	1	1	0	1	0	0	0	\$18,418	0.9969350
VA298	Norfolk/Portsmouth	VA	1	1	1	0	0	0	0	\$18,430	0.9975834
ME139	Portland	ME	1	1	1	0	0	0	0	\$18,431	0.9976448
MD135	Patuxent River	MD	1	1	1	0	0	0	0	\$18,431	0.9976611
FL064	Pensacola	FL	1	1	1	0	0	0	0	\$18,440	0.9981097
PA251	Reading	PA	1	1	0	1	0	0	0	\$18,457	0.9990624
CO045	Denver	CO	1	1	1	0	0	0	0	\$18,474	0.9999655
VA297	Hampton/Newport News	VA	1	1	1	0	19135	926	20061	\$18,475	1.0000192
OK237	Ft Sill	OK	1	1	1	0	16007	0	16007	\$18,499	1.0013265
KY106	Ft Campbell	TN	1	1	1	0	22670	0	22670	\$18,508	1.0018301
FLO66	Tampa	FL	1	1	1	0	6695	1015	7710	\$18,511	1.0019532
TX288	Wichita Falls/Sheppard AFB	TX	1	1	1	0	6279	0	6279	\$18,514	1.0021105
FL058	Jacksonville	FL	1	1	1	0	14123	323	14446	\$18,516	1.0022398
MS168	Gulfport	MS	1	1	1	0	9565	89	9654	\$18,564	1.0048366
FL062	Orlando	FL	1	1	1	0	17134	1	17135	\$18,573	1.0053367
MA123	Ft Devens	MA	1	1	1	0	4962	0	4962	\$18,574	1.0054010
MS169	Columbus	MS	1	1	1	0	1808	0	1808	\$18,598	1.0066848
MD128	Annapolis	MD	1	1	1	0	1078	37	1115	\$18,604	1.0069900

Table X-1 Continued

MHA	Location	State	Infrastructure				Personnel			Adjusted Cost	CONUS COLA Index
			Comm	Exc	Hosp	Clin	DoD	DoT	Total		
MD131	Ft Ritchie	MD	1	1	0	1	1086	0	1086	\$18,604	1.0070093
NM206	Albuquerque-Kirtland AFB	NM	1	1	1	0	4956	3	4959	\$18,605	1.0070460
AZ016	Yuma	AZ	1	1	0	1	4757	0	4757	\$18,643	1.0091126
MD127	Aberdeen Proving Grounds	MD	1	1	1	0	3847	0	3847	\$18,644	1.0091572
LA115	Ft Polk	LA	1	1	1	0	15039	0	15039	\$18,669	1.0105231
NV212	Nellis AFB	NV	1	1	1	0	8321	7	8328	\$18,694	1.0118591
AZ015	Davis-Monthan AFB	AZ	1	1	1	0	5219	1	5220	\$18,713	1.0129266
GA080	Ft Stewart	GA	1	1	1	0	15272	0	15272	\$18,722	1.0133903
TN354	Manchester/Tullahoma	TN	1	1	0	0	157	0	157	\$18,725	1.0135777
MO161	St Louis	MO	1	1	1	0	945	324	1269	\$18,735	1.0140918
TX289	Beeville	TX	1	0	0	1	802	0	802	\$18,745	1.0146483
MD129	Baltimore	MD	1	1	1	0	338	494	832	\$18,791	1.0171141
ND189	Fargo	ND	0	0	0	0	57	0	57	\$18,794	1.0172920
GA073	Ft Gordon	GA	1	1	1	0	8896	0	8896	\$18,805	1.0178952
CA392	San Luis Obispo	CA	1	1	1	0	75	24	99	\$18,809	1.0180993
CA026	Vandenberg AFB	CA	1	1	1	0	3287	0	3287	\$18,811	1.0181958
NY222	Griffiss AFB	NY	1	1	1	0	4111	0	4111	\$18,847	1.0201535
MA122	Worcester	MA	1	1	1	0	51	1	52	\$18,851	1.0203692
RI256	Newport	RI	1	1		0	4010	346	4356	\$18,853	1.0204738
PA383	Johnstown	PA	0	0	0	0	13	0	13	\$18,872	1.0215141
NY225	Ft Drum/Watertown	NY	1	1	0	1	10072	2	10074	\$18,872	1.0215385
CA033	Beale AFB	CA	1	1	1	0	3588	0	3588	\$18,873	1.0215453
CA039	Monterey	CA	1	1	1	0	20360	120	21080	\$18,874	1.0215395
FL328	Avon Park/Sebring	FL	1	1	0	0	230	0	230	\$18,887	1.0223412
TX280	Galveston	TX	0	1	1	0	21	361	382	\$18,895	1.0227838
ID085	Idaho Falls	ID	0	0	0	0	1283	0	1283	\$18,917	1.0239498
ID087	Pocatella	ID	0	0	0	0	7	0	7	\$18,917	1.0239498
CA022	Fresno	CA	1	1	1	0	96	3	99	\$18,925	1.0243574
WI319	Oshkosh/Appleton	WI	0	0	0	0	11	0	11	\$18,928	1.0245453

Table X-1 Continued

MHA	Location	State	Infrastructure				Personnel			Adjusted COL	CONUS COLA Index
			Comm	Exc	Hosp	Clin	DoD	DoT	Total		
GA071	Atlanta	GA	1	1	0	1	3315	9	3324	\$18,983	1.0275256
MI145	Sault Ste Marie	MI	0	1	0	0	0	141	141	\$18,985	1.0276415
GA074	St Simons Island	GA	1	1	0	0	2454	42	2496	\$18,992	1.0280269
PA250	Pittsburgh	PA	0	1	0	0	771	40	811	\$18,997	1.0282689
WI316	Madison	WI	0	0	0	0	74	0	74	\$18,998	1.0283343
NY215	Ballston Spa	NY	1	1	0	1	2075	4	2079	\$19,006	1.0287739
CA042	Humboldt County	CA	1	1	0	1	260	230	490	\$19,008	1.0288900
DE055	Rehoboth	DE	0	0	0	0	5	37	42	\$19,039	1.0305535
WA310	Spokane	WA	1	1	1	0	4240	3	4243	\$19,043	1.0307434
IL335	Springfield/Decatur	IL	0	0	0	0	41	0	41	\$19,052	1.0312572
WA306	Bremerton	WA	1	1	1	0	4592	11	4603	\$19,060	1.0317121
CA024	Camp Pendleton	CA	1	1	1	0	34467	12	34479	\$19,061	1.0317614
NJ203	Trenton	NJ	1	1	1	0	64	0	64	\$19,067	1.0320653
OH229	Cleveland	OH	0	1	1	0	672	307	979	\$19,068	1.0320989
CT049	New London	CT	1	1	1	0	7194	602	7796	\$19,072	1.0323507
SC261	Greenville	SC	0	0	0	0	48	0	48	\$19,081	1.0328269
WI317	Milwaukee	WI	0	1	0	0	491	91	582	\$19,083	1.0329111
CA028	Fl Irwin	CA	1	1	1	0	4754	0	4754	\$19,110	1.0344124
PA249	Nas Willow Grove	PA	1	1	1	0	752	0	752	\$19,113	1.0345359
CA029	George AFB	CA	1	1	1	0	4305	0	4305	\$19,117	1.0347592
CA021	China Lake NAWEPEN	CA	1	1	0	1	978	0	978	\$19,134	1.0357142
CA035	Stockton	CA	1	1	0	1	313	0	313	\$19,134	1.0357166
CO047	Fort Collins	CO	0	0	0	0	28	0	28	\$19,140	1.0360205
NH195	Manchester/Concord	NH	0	1	0	0	151	4	155	\$19,140	1.0360442
MA377	Hanscom AFB	MA	1	1	1	0	2087	0	2087	\$19,146	1.0363308
CA022	Edwards AFB	CA	1	1	1	0	4485	0	4485	\$19,154	1.0367620
LA116	New Orleans	LA	1	1	0	1	2368	868	3236	\$19,174	1.0378663
NC184	Greensboro	NC	0	0	0	0	216	5	221	\$19,181	1.0382398
NY217	West Point	NY	1	1	1	0	2058	0	2058	\$19,185	1.0384512

Table X-1 Continued

MHA	Location	State	Infrastructure				Personnel			Adjusted COL	CONUS COLA Index
			Comm	Exc	Hosp	Clin	DoD	DoT	Total		
MA124	Brockton/ So Weymouth	MA	1	1	1	0	303	129	432	\$19,188	1.0386042
OH232	Toledo	OH	0	0	0	0	51	36	87	\$19,188	1.0386187
FL069	Key West	FL	1	1	0	1	2447	608	3055	\$19,188	1.0386197
OH233	Youngstown	OH	0	0	0	0	25	0	25	\$19,190	1.0387269
MI154	Grand Rapids	MI	0	1	0	0	21	0	21	\$19,190	1.0387297
CA032	Twentynine Palms	CA	1	1	1	0	7215	0	7215	\$19,223	1.0405356
WA311	Tacoma	WA	1	1	1	0	23762	3	23765	\$19,224	1.0405406
PA252	State College	PA	0	0	0	0	78	1	79	\$19,230	1.0408921
AL008	Tuscaloosa	AL	0	0	0	0	30	0	30	\$19,231	1.0409462
IL090	Peoria	IL	0	0	0	0	163	21	184	\$19,251	1.0420288
IL092	Great Lakes NAVTRACN	IL	1	1	1	0	24678	111	24789	\$19,256	1.0422913
CA025	Ventura	CA	1	1	1	0	3680	67	3147	\$19,265	1.0427751
OR245	Newport	OR	0	0	0	0	69	71	140	\$19,268	1.0429490
TX281	South Padre Island	TX	0	0	0	0	91	62	153	\$19,270	1.0430572
WV321	Sugar Grove	WV	0	0	0	1	150	0	150	\$19,277	1.0434119
VA295	Charlottesville	VA	0	0	0	0	203	2	205	\$19,277	1.0434361
MI152	Battle Creek/ Kalamazoo	MI	0	0	0	0	39	0	39	\$19,294	1.0443563
FL397	Polk County	FL	0	0	0	0	8	0	8	\$19,305	1.0449517
OR243	Portland	OR	0	1	0	0	534	109	643	\$19,318	1.0456510
MA120	Boston CMP	MA	1	1	1	0	998	1117	2115	\$19,346	1.0471565
OH228	Cincinnati S2	OH	0	0	0	0	311	5	316	\$19,370	1.0484701
NJ204	Fl Dix/Mcguire AFB	NJ	1	1	1	0	12667	0	12667	\$19,372	1.0486049
IN337	Evansville	IN	0	0	0	0	9	0	9	\$19,387	1.0493903
PA255	Allentown/Bethlehem	PA	0	0	0	0	39	0	39	\$19,387	1.0493903
MA126	Hampden County	MA	0	1	0	1	66	4	70	\$19,390	1.0495306
AZ013	Phoenix	AZ	1	1	1	0	8044	3	8047	\$19,439	1.0522176
VA296	Quantico/Woodbridge	VA	1	1	1	0	8032	0	8032	\$19,448	1.0527146
NC179	Charlotte	NC	0	0	0	0	202	5	207	\$19,460	1.0533417

Table X-1 Continued

MHA	Location	State	Infrastructure				Personnel			Adjusted COL	CONUS COLA Index
			Comm	Exc	Horr	Clin	DoD	DoT	Total		
FLO57	Gainesville	FL	0	0	0	0	93	0	93	\$19,477	1.0542618
WA309	Seattle CMP	WA	1	1	1	0	1493	698	2191	\$19,494	1.0552039
CA034	Sacramento	CA	1	1	1	0	6732	167	6899	\$19,506	1.0556087
MN159	Minneapolis/St Paul	MN	0	1	0	0	757	4	761	\$19,522	1.0566930
NM208	Gallup	NM	0	0	0	0	1	0	1	\$19,522	1.0566976
WV360	Beckley	WV	0	0	0	0	132	0	132	\$19,538	1.0575637
ME390	Bangor	ME	0	0	0	0	230	0	230	\$19,541	1.0577251
CA041/ 31	Riverside/ San Bernrdo	CA	1	1	1	0	8241	11	8252	\$19,552	1.0583160
VA304	Wallops Island	VA	0	0	0	0	45	119	164	\$19,558	1.0586463
WV320	Morgantown	WV	0	0	0	0	37	0	37	\$19,559	1.0587004
MI155	Ann Arbor	MI	0	0	0	0	66	21	87	\$19,565	1.0590252
WV323	Charleston	WV	0	0	0	0	75	2	77	\$19,606	1.0612444
AK405	Fairbanks	AK	1	1	1	0	0	0	0	\$19,626	1.0623431
MS170	Jackson	MS	0	0	0	0	221	20	241	\$19,539	1.0630307
AK404	Anchorage	AK	1	1	1	0	0	0	0	\$19,640	1.0630644
NY216	Buffalo	NY	0	1	0	0	314	105	419	\$19,643	1.0632629
CA036	Travis AFB	CA	1	1	1	0	10407	39	10446	\$19,647	1.0634489
TN269	Nashville	TN	0	0	0	0	519	0	519	\$19,669	1.0646545
NY226	Binghamton/Ithaca	NY	0	0	0	0	56	0	56	\$19,694	1.0660077
TN268	Memphis	TN	1	0	0	1	8251	68	8319	\$19,700	1.0663222
AZ017	Navajo County	AZ	0	0	0	0	63	0	63	\$19,716	1.0671986
CA038	San Diego	CA	1	1	1	0	52641	376	53017	\$19,722	1.0675403
MS172	Hattiesburg	MS	0	0	0	0	23	0	24	\$19,747	1.0688765
ZZ754	Fort Bragg	CA	0	0	0	0	3	18	21	\$19,756	1.0693637
NY221	Rochester	NY	0	0	0	0	83	18	101	\$19,770	1.0701215
NJ201	Perth Amboy	NJ	1	1	1	0	294	0	294	\$19,773	1.0702967
NJ200	Fi Monmouth/Earle	NJ	1	1	1	0	2600	235	2835	\$19,812	1.0724036
NY220	Lake Placid	NY	0	0	0	0	3510	0	3510	\$19,818	1.0727197
FL061	Fort Lauderdale	FL	0	1	0	1	39	71	110	\$19,845	1.0742013

Table X-1 Continued

MHA	Location	State	Infrastructure				Personnel			Adjusted COL	CONUS COLA Index
			Comm	Exc	Hosp	Clin	DoD	DoT	Total		
MI341	Flint	MI	0	0	0	0	3	0	3	\$19,865	1.0752637
MA121	Nantucket	MA	0	0	0	0	126	657	783	\$19,908	1.0775912
NJ198	Cape May	NJ	0	1	0	1	7	1415	1422	\$19,918	1.0781145
CA393	Bridgeport	CA	0	0	0	1	231	0	231	\$19,931	1.0789190
DC053	Washington CMP	DC	1	1	1	0	51743	1668	53411	\$19,949	1.0797858
WA313	Yakima	WA	0	0	0	0	115	1	116	\$19,958	1.0802977
WA315	Aberdeen	WA	0	0	0	0	132	1	133	\$19,992	1.0821380
IL325	Chicago, CMP	IL	1	1	0	1	260	48	308	\$20,017	1.0834818
MD133	Ft Meade/Laurel	MD	1	1	1	0	8243	0	8243	\$20,056	1.0855857
CA044	Santa Clara County	CA	1	1	1	0	3188	4	3192	\$20,080	1.0868866
FL060	Miami CMP	FL	1	1	1	0	4473	1338	5811	\$20,167	1.0916279
CA037	Los Angeles CMP	CA	1	1	0	1	15703	651	16359	\$20,180	1.0923383
FL067	West Palm Beach	FL	0	0	0	0	32	55	87	\$20,186	1.0926390
WA307	Everett	WA	0	0	0	0	13	17	30	\$20,196	1.0931803
TX277	Dallas S2	TX	1	1	1	0	1260	8	1268	\$20,351	1.1015940
PA248	Philadelphia/Camden	PA	1	1	1	0	2896	178	3074	\$20,354	1.1017444
RI257	Providence	RI	0	0	0	0	146	78	224	\$20,515	1.1104473
CT050	Hartford	CT	0	0	0	1	817	2	819	\$20,565	1.1131570
MI142	Detroit	MI	0	0	0	1	1167	290	1457	\$20,629	1.1166399
NJ196	Atlantic City	NJ	0	0	0	0	1	31	32	\$20,639	1.1171592
CA019	San Francisco CMP	CA	1	1	1	0	3569	339	3908	\$20,640	1.1171986
CA027	Marin/Sonoma County	CA	1	1	0	1	296	835	1131	\$20,650	1.1177506
TX282	Houston	TX	0	1	0	0	650	284	934	\$20,708	1.1208927
NY218	Freeport	NY	1	1	0	1	415	260	675	\$20,840	1.1280299
CA018	Oakland	CA	1	1	1	0	5348	752	6100	\$21,085	1.1412858
HI408	Honolulu County	HI	1	1	1	0	0	0	0	\$21,115	1.1429406
CT051	New Haven	CT	0	1	0	0	111	116	307	\$21,218	1.1485105
HI409	Hawaii County	HI	0	1	0	1	0	0	0	\$21,490	1.1632308
NY219	New York City CMP	NY	1	1	1	0	1399	1482	2881	\$21,702	1.1746940
NY349	Westchester	NY	1	1	1	0	14	0	14	\$22,064	1.1942999



Table X-2. Unadjusted cost-of-living by category, 1990, 10 income level, family size 4, March 1991)

City	State	Fed.State Local Income Tax	Public Commutation	Personal Auto	Goods & Services	Sales Taxes	Miscell- aneous	Total
Aberdeen	WA	\$5,100		\$3,465	\$8,564	\$685	\$3,309	\$21,123
Aberdeen Prvng Grnds	MD	\$6,792		\$3,346	\$8,785	\$317	\$3,309	\$22,549
Albuquerque	NM	\$5,757		\$3,338	\$8,322	\$726	\$3,309	\$21,452
Allentown	PA	\$6,093		\$3,181	\$8,617	\$311	\$3,309	\$21,511
Altus AFB	OK	\$6,264		\$3,127	\$8,287	\$613	\$3,309	\$21,666
Anchorage	AK	\$5,100		\$3,784	\$9,832	\$0	\$3,309	\$22,025
Ann Arbor	MI	\$5,976		\$3,414	\$8,499	\$374	\$3,309	\$21,572
Annapolis	MD	\$6,792		\$3,346	\$8,759	\$317	\$3,309	\$22,523
Anniston	AL	\$6,183	\$375	\$3,001	\$8,103	\$700	\$3,309	\$21,671
Appleton	WI	\$6,572		\$3,063	\$8,184	\$403	\$3,309	\$21,531
Atlanta S2	GA	\$6,280		\$3,407	\$8,671	\$519	\$3,309	\$22,186
Atlantic City	NJ	\$5,405		\$4,168	\$8,819	\$374	\$3,309	\$22,075
Avon Park	FL	\$5,100		\$3,275	\$8,387	\$649	\$3,309	\$20,720
Avon by the Sea	NJ	\$5,175		\$4,191	\$8,988	\$374	\$3,309	\$22,037
Ballston Spa	PA	\$6,078		\$3,343	\$8,661	\$630	\$3,309	\$22,021
Baltimore B3	MD	\$6,792		\$3,493	\$8,785	\$317	\$3,309	\$22,696
Bangor	ME	\$5,848		\$3,146	\$8,772	\$345	\$3,309	\$21,420
Bar Harbor/SW Harbor	ME	\$5,848		\$3,114	\$8,589	\$345	\$3,309	\$21,205
Barnegat Light	NJ	\$5,470		\$3,872	\$8,831	\$374	\$3,309	\$21,856
Battle Crk/Kalamazoo	MI	\$6,172		\$3,289	\$8,353	\$374	\$3,309	\$21,497
Beale AFB	CA	\$5,637		\$3,555	\$8,667	\$464	\$3,309	\$21,632
Beckley	WV	\$6,000		\$3,247	\$8,333	\$680	\$3,309	\$21,569
Beeville	TX	\$5,100		\$3,304	\$8,364	\$453	\$3,309	\$20,530
Binghamton	NY	\$6,078		\$3,255	\$8,531	\$630	\$3,309	\$21,803
Boston Cmp	MA	\$6,606	\$88	\$4,090	\$8,713	\$233	\$3,309	\$23,039
Boston S1	MA	\$6,606	\$264	\$4,271	\$8,713	\$233	\$3,309	\$23,396
Bremerton	WA	\$5,100		\$3,479	\$8,709	\$685	\$3,309	\$21,282
Bridgeport	CA	\$5,637		\$3,586	\$8,805	\$464	\$3,309	\$21,801
Brocton	MA	\$6,606		\$4,020	\$8,713	\$233	\$3,309	\$22,881
Buffalo	NY	\$6,078		\$3,324	\$8,579	\$720	\$3,309	\$22,010

Table X-2 Continued

City	State	Fed State/Local Income Tax	Public Commutation	Personal Auto	Goods & Services	Sales Taxes	Miscell- aneous	Total
Burlington	VT	\$5,885		\$3,010	\$8,919	\$196	\$3,309	\$21,319
Camp Pendleton	CA	\$5,637		\$3,633	\$8,679	\$542	\$3,309	\$21,800
Cape Cod	MA	\$6,606		\$3,627	\$8,695	\$233	\$3,309	\$22,470
Cape May	NJ	\$5,610		\$3,872	\$8,859	\$374	\$3,309	\$22,024
Carlisle Barracks	PA	\$6,393		\$3,109	\$8,449	\$311	\$3,309	\$21,571
Charleston	SC	\$6,139		\$3,355	\$8,141	\$493	\$3,309	\$21,437
Charlestown	WV	\$6,000		\$3,227	\$8,421	\$680	\$3,309	\$21,637
Charlotte	NC	\$6,570		\$3,209	\$8,440	\$533	\$3,309	\$22,061
Charlottesville	VA	\$6,269		\$3,182	\$8,388	\$429	\$3,309	\$21,577
Cheyenne	WY	\$5,100		\$3,023	\$8,263	\$455	\$3,309	\$20,150
Chicago Cmp	IL	\$5,898	\$284	\$3,969	\$8,753	\$629	\$3,309	\$22,842
Chicago S1	IL	\$5,898	\$567	\$4,214	\$8,753	\$694	\$3,309	\$23,435
China Lake	CA	\$5,637		\$3,546	\$8,774	\$464	\$3,309	\$21,730
Cincinnati	OH	\$6,280		\$3,175	\$8,544	\$373	\$3,309	\$21,681
Cleveland	OH	\$6,355		\$3,344	\$8,559	\$490	\$3,309	\$22,057
Colorado Springs	CO	\$6,234		\$3,503	\$8,312	\$325	\$3,309	\$21,683
Columbia	MD	\$6,792	\$450	\$3,510	\$8,785	\$317	\$3,309	\$23,163
Columbus AFB	MS	\$5,770		\$3,275	\$8,373	\$723	\$3,309	\$21,450
Crescent City	CA	\$5,637		\$3,504	\$8,697	\$464	\$3,309	\$21,611
Dallas S2	TX	\$5,100	\$648	\$3,648	\$8,967	\$482	\$3,309	\$22,154
Davis-Monthan AFB	AZ	\$5,784		\$3,547	\$8,367	\$570	\$3,309	\$21,577
Decatur	IL	\$5,898		\$3,106	\$8,039	\$629	\$3,309	\$20,981
Denver	CO	\$6,234		\$3,500	\$8,405	\$327	\$3,309	\$21,775
Des Moines	IA	\$6,240		\$3,051	\$8,211	\$381	\$3,309	\$21,192
Detroit S3	MI	\$5,946		\$3,853	\$8,559	\$374	\$3,309	\$22,041
Dover AFB	DE	\$6,474		\$3,071	\$8,690	\$0	\$3,309	\$21,544
Edwards AFB	CA	\$5,637		\$3,790	\$8,685	\$503	\$3,309	\$21,924
Egin AFB	FL	\$5,100		\$3,252	\$8,322	\$602	\$3,309	\$20,585
Ellsworth AFB	SD	\$5,100		\$3,002	\$8,153	\$740	\$3,309	\$20,304
Evansville	IN	\$6,255		\$3,309	\$8,312	\$488	\$3,309	\$21,673
Everett	WA	\$5,100		\$3,568	\$8,656	\$694	\$3,309	\$21,327

Table X-2 Continued

City	State	Fed/State/Local Income Tax	Public Commutation	Personal Auto	Goods & Services	Sales Taxes	Miscell- aneous	Total
Fairbanks	AK	\$5,100		\$3,761	\$9,856	\$0	\$3,309	\$22,026
Fargo	ND	\$5,577		\$3,028	\$8,181	\$307	\$3,309	\$20,402
Fire Island	NY	\$6,078		\$3,802	\$9,486	\$675	\$3,309	\$23,350
Flint	MI	\$6,405		\$3,747	\$8,466	\$374	\$3,309	\$22,301
Ft Bragg	CA	\$5,637		\$3,503	\$8,511	\$464	\$3,309	\$21,424
Ft Bragg/Pope	NC	\$6,570		\$3,170	\$8,071	\$533	\$3,309	\$21,653
Ft Campbell	KY	\$5,100		\$3,088	\$8,314	\$864	\$3,309	\$20,675
Ft Collins	CO	\$6,234		\$3,312	\$8,262	\$288	\$3,309	\$21,405
Ft Devens	MA	\$6,606		\$3,671	\$8,450	\$233	\$3,309	\$22,269
Ft Drum	NY	\$6,078		\$3,300	\$8,565	\$630	\$3,309	\$21,882
Ft Gordon	GA	\$6,280		\$3,393	\$8,494	\$719	\$3,309	\$22,195
Ft Harrison	IN	\$6,228		\$3,371	\$8,261	\$488	\$3,309	\$21,657
Ft Irwin	CA	\$5,637		\$3,723	\$8,715	\$503	\$3,309	\$21,887
Ft Knox	KY	\$6,545		\$3,127	\$8,096	\$414	\$3,309	\$21,491
Ft Lauderdale	FL	\$5,100	\$720	\$3,671	\$8,818	\$556	\$3,309	\$22,174
Ft Leavenworth	KS	\$5,830		\$3,100	\$8,361	\$509	\$3,309	\$21,109
Ft Leonard Wood	MO	\$6,183		\$3,056	\$8,169	\$680	\$3,309	\$21,407
Ft Meade/Laurel	MD	\$6,792		\$3,612	\$9,299	\$317	\$3,309	\$23,329
Ft Polk	LA	\$5,839		\$3,534	\$8,332	\$557	\$3,309	\$21,571
Ft Ritchie	MD	\$6,792		\$3,346	\$8,561	\$317	\$3,309	\$22,325
Ft Rucker	AL	\$6,183		\$2,993	\$8,156	\$700	\$3,309	\$21,341
Ft Sill	OK	\$6,264		\$3,205	\$8,287	\$783	\$3,309	\$21,848
Ft Stewart	GA	\$6,280		\$3,187	\$8,617	\$719	\$3,309	\$22,112
Freeport	NY	\$6,078		\$4,349	\$9,486	\$720	\$3,309	\$23,942
Fresno	CA	\$5,637		\$3,685	\$8,551	\$503	\$3,309	\$21,685
Ft Dix/McGuire	NJ	\$5,189		\$3,872	\$8,988	\$374	\$3,309	\$21,732
Ft Monmouth	NJ	\$5,175		\$4,191	\$9,108	\$374	\$3,309	\$22,157
Gainesville	FL	\$5,100		\$3,236	\$8,407	\$556	\$3,309	\$20,608
Gallup	NM	\$5,757		\$3,332	\$8,147	\$765	\$3,309	\$21,310
Galveston	TX	\$5,100		\$3,444	\$8,320	\$453	\$3,309	\$20,626
George AFB	CA	\$5,637		\$3,723	\$8,715	\$503	\$3,309	\$21,887

Table X-2 Continued

City	State	Fed/State/Local Income Tax	Public Commulation	Personal Auto	Goods & Services	Sales Taxes	Miscell- aneous	Total
Grand Rapids	MI	\$6,295		\$3,382	\$8,401	\$374	\$3,309	\$21,761
Great Lakes	IL	\$5,898		\$3,724	\$8,753	\$564	\$3,309	\$22,248
Greensboro	NC	\$6,570		\$3,094	\$8,276	\$533	\$3,309	\$21,782
Greenville	SC	\$6,139		\$3,199	\$8,111	\$493	\$3,309	\$21,251
Griffiss AFB	NY	\$6,078		\$3,379	\$8,624	\$653	\$3,309	\$22,043
Gulfport	MS	\$5,770		\$3,301	\$8,293	\$723	\$3,309	\$21,396
Hampden Co	MA	\$6,606		\$3,671	\$8,645	\$233	\$3,309	\$22,464
Hampton/Newport	VA	\$6,269		\$3,244	\$8,590	\$429	\$3,309	\$21,841
Hanscom AFB	MA	\$6,606		\$3,978	\$8,713	\$233	\$3,309	\$22,839
Hartford	CT	\$5,164	\$348	\$3,734	\$8,990	\$421	\$3,309	\$21,966
Hattiesburg	MS	\$5,770	\$240	\$3,275	\$8,471	\$723	\$3,309	\$21,788
Hawaii Co	HI	\$6,350		\$3,895	\$10,235	\$579	\$3,309	\$24,368
Hill AFB	UT	\$6,331		\$3,293	\$8,021	\$654	\$3,309	\$21,608
Hilton Head	SC	\$6,139		\$3,313	\$8,112	\$493	\$3,309	\$21,366
Honolulu	HI	\$6,350		\$3,976	\$10,619	\$579	\$3,309	\$24,833
Houston S3	TX	\$5,100	\$1,012	\$3,701	\$8,500	\$462	\$3,309	\$22,084
Humboldt Co	CA	\$5,637		\$3,508	\$8,697	\$464	\$3,309	\$21,615
Idaho Falls	ID	\$6,215		\$3,085	\$8,084	\$470	\$3,309	\$21,163
Ja Ckson	MS	\$5,770		\$3,275	\$8,363	\$723	\$3,309	\$21,440
Ja Cksonville	FL	\$5,100		\$3,260	\$8,434	\$602	\$3,309	\$20,705
Johnstown	PA	\$6,093	\$360	\$3,140	\$8,143	\$311	\$3,309	\$21,356
Joliet Army Depot	IL	\$5,898		\$3,329	\$8,091	\$629	\$3,309	\$21,256
Key west	FL	\$5,100		\$3,314	\$8,892	\$649	\$3,309	\$21,264
Lake Placid	NY	\$6,078		\$3,315	\$8,595	\$630	\$3,309	\$21,927
Lake Tahoe	CA	\$5,637		\$3,635	\$8,659	\$464	\$3,309	\$21,704
Lexington	KY	\$7,250		\$3,062	\$8,347	\$414	\$3,309	\$22,382
Little Rock	AR	\$6,588		\$3,060	\$8,332	\$693	\$3,309	\$21,982
Los Angeles	CA	\$5,637	\$348	\$4,060	\$8,909	\$503	\$3,309	\$22,766
Los Angeles	CA	\$5,637	\$696	\$4,160	\$8,909	\$503	\$3,309	\$23,214
Louisville	KY	\$7,165		\$3,158	\$8,279	\$414	\$3,309	\$22,325
Madison	WI	\$6,536		\$3,029	\$8,288	\$403	\$3,309	\$21,565

Table X-2 Continued

City	State	Fed/State/Local Income Tax	Public Commutation	Personal Auto	Goods & Services	Sales Taxes	Miscellaneous	Total
Malstrom AFB	MT	\$6,485		\$3,139	\$8,205	\$0	\$3,309	\$21,138
Manchester/Concord	NH	\$5,100		\$3,489	\$8,631	\$0	\$3,309	\$20,529
Manchester/Tulahoma	TN	\$5,100		\$3,059	\$8,266	\$810	\$3,309	\$20,544
Marin County	CA	\$5,637	\$729	\$4,108	\$8,999	\$464	\$3,309	\$23,246
McConnell	KS	\$5,830		\$3,161	\$8,301	\$509	\$3,309	\$21,110
Memphis	TN	\$5,100	\$375	\$3,771	\$8,688	\$837	\$3,309	\$21,480
Miami Cmp	FL	\$5,100	\$720	\$3,891	\$8,818	\$556	\$3,309	\$22,394
Miami S2	FL	\$5,100	\$720	\$4,110	\$8,818	\$556	\$3,309	\$22,613
Milwaukee	WI	\$6,498		\$3,297	\$8,357	\$403	\$3,309	\$21,864
Minneapolis	MN	\$6,268		\$3,495	\$8,711	\$291	\$3,309	\$22,074
Minot AFB	ND	\$5,577		\$2,977	\$8,039	\$283	\$3,309	\$20,185
Monterey	CA	\$5,637		\$3,578	\$8,629	\$503	\$3,309	\$21,656
Montgomery	AL	\$6,183		\$3,019	\$8,228	\$800	\$3,309	\$21,539
Morgantown	WV	\$6,000		\$3,142	\$8,459	\$680	\$3,309	\$21,590
Morro Bay	CA	\$5,637		\$3,497	\$8,673	\$464	\$3,309	\$21,580
Myrtle Beach AFB	SC	\$6,139		\$3,313	\$8,091	\$493	\$3,309	\$21,345
Nantucket	MA	\$6,606		\$3,572	\$8,825	\$233	\$3,309	\$22,545
Nashville	TN	\$5,100		\$3,101	\$8,453	\$837	\$3,309	\$20,800
NAS Willow Grove	PA	\$6,053		\$3,796	\$8,816	\$311	\$3,309	\$22,285
Navajo Co	AZ	\$5,784		\$3,473	\$8,395	\$570	\$3,309	\$21,531
Nellis AFB	NV	\$5,100		\$3,754	\$8,310	\$369	\$3,309	\$20,842
New Haven	CT	\$5,164		\$4,271	\$9,520	\$421	\$3,309	\$22,685
New London	CT	\$5,164		\$3,673	\$8,800	\$421	\$3,309	\$21,367
New Orleans	LA	\$5,839		\$3,740	\$8,395	\$636	\$3,309	\$21,919
New York City	NY	\$5,534	\$1,584	\$4,122	\$9,348	\$496	\$3,309	\$24,393
New York City	NY	\$6,599	\$3,672	\$3,854	\$9,273	\$743	\$3,309	\$27,450
NYC (NENJ) S2	NJ	\$5,175	\$2,324	\$4,104	\$9,052	\$374	\$3,309	\$24,338
NYC (LNYS) S3	NY	\$6,078	\$1,508	\$2,954	\$9,629	\$637	\$3,309	\$25,115
NYC (L CT) S4	CT	\$5,164	\$2,112	\$4,134	\$9,520	\$421	\$3,309	\$24,660
NYC (LI) S5	NY	\$6,078	\$2,024	\$4,235	\$9,486	\$675	\$3,309	\$25,807
Newport	OR	\$6,876		\$3,247	\$8,743	\$0	\$3,309	\$22,175

Table X-2 Continued

City	State	Fed/State/Local Income Tax	Public Commutation	Personal Auto	Goods & Services	Sales Taxes	Miscell- aneous	Total
Newport	RI	\$5,744		\$3,456	\$8,326	\$383	\$3,309	\$21,718
Norfolk	VA	\$6,269		\$3,199	\$8,590	\$429	\$3,309	\$21,796
Oakland	CA	\$5,637	\$1,144	\$4,238	\$8,999	\$542	\$3,309	\$23,869
Ocean City	NY	\$5,175		\$3,872	\$8,819	\$374	\$3,309	\$21,549
Offutt AFB	NE	\$5,884		\$3,286	\$8,016	\$472	\$3,308	\$20,966
Orlando	FL	\$5,100		\$3,314	\$8,474	\$556	\$3,309	\$20,753
Palm Springs	CA	\$5,637		\$3,668	\$8,861	\$503	\$3,309	\$21,978
Patuxent River	MD	\$6,792		\$3,346	\$8,552	\$317	\$3,309	\$22,316
Pensa Cola	FL	\$5,100		\$3,333	\$8,322	\$556	\$3,309	\$20,620
Peoria	IL	\$5,898		\$3,208	\$8,136	\$629	\$3,309	\$21,180
Perth Amboy	NJ	\$5,175		\$4,182	\$9,052	\$374	\$3,309	\$22,092
Petersburg	VA	\$6,269		\$3,242	\$8,470	\$429	\$3,309	\$21,719
Philadelphia	PA	\$5,732		\$3,918	\$8,782	\$332	\$3,309	\$22,073
Philadelphia	PA	\$5,968	\$1,168	\$3,855	\$8,820	\$311	\$3,309	\$23,441
Philadelphia	NJ	\$5,175	\$980	\$4,093	\$8,713	\$374	\$3,309	\$22,644
Phoenix	AZ	\$5,784	\$432	\$3,686	\$8,552	\$535	\$3,309	\$22,298
Pittsburgh	PA	\$6,113		\$3,317	\$8,338	\$311	\$3,309	\$21,388
Plymouth/Marshfield	MA	\$6,606		\$3,712	\$9,521	\$233	\$3,309	\$22,381
Pocatello	ID	\$6,215		\$3,085	\$8,084	\$470	\$3,309	\$21,163
Point Pleasant	NJ	\$5,232		\$3,872	\$8,988	\$374	\$3,309	\$21,775
Polk County	FL	\$5,100		\$3,287	\$8,184	\$556	\$3,309	\$20,436
Portland	ME	\$5,848		\$3,183	\$8,691	\$345	\$3,309	\$21,376
Portland	OR	\$6,876		\$3,498	\$8,806	\$0	\$3,309	\$22,489
Princeton	NJ	\$5,175		\$3,733	\$8,643	\$374	\$3,309	\$21,234
Providence	RI	\$5,744	\$360	\$3,668	\$8,826	\$383	\$3,309	\$22,290
Quantico/Woodbridge	VA	\$6,269		\$3,573	\$9,299	\$429	\$3,309	\$22,879
Reading	PA	\$6,093		\$3,168	\$8,610	\$311	\$3,309	\$21,491
Rehoboth Beach	DE	\$6,474		\$3,071	\$8,690	\$0	\$3,309	\$21,544
Richmond	VA	\$6,269		\$3,279	\$8,470	\$429	\$3,309	\$21,756
Rio vista	CA	\$5,637		\$3,625	\$8,999	\$464	\$3,309	\$22,034
Riverside/San Bernardino	CA	\$5,637		\$3,959	\$8,909	\$503	\$3,309	\$22,317

Table X-2 Continued

City	State	Fed State Local Income Tax	Public Commutation	Personal Auto	Goods & Services	Sales Taxes	Miscellaneous	Total
Rochester	NY	\$6,078		\$3,235	\$8,627	\$630	\$3,309	\$21,879
Sacramento	CA	\$5,637	\$480	\$3,669	\$8,667	\$503	\$3,309	\$22,265
San Antonio	TX	\$5,100		\$3,582	\$7,994	\$482	\$3,309	\$20,467
San Diego S2	CA	\$5,637	\$580	\$3,714	\$8,679	\$542	\$3,309	\$22,461
Sandy Hook	CT	\$5,164		\$3,957	\$8,921	\$421	\$3,309	\$21,772
San Francisco	CA	\$5,637	\$839	\$4,124	\$8,999	\$516	\$3,309	\$23,424
San Francisco S2	CA	\$5,637	\$644	\$4,026	\$8,999	\$542	\$3,309	\$23,157
San Louis Obispo	CA	\$5,637		\$3,497	\$8,673	\$464	\$3,309	\$21,580
Santa Barbara	CA	\$5,637		\$3,522	\$8,906	\$503	\$3,309	\$21,877
Santa Clara	CA	\$5,637	\$348	\$4,029	\$8,999	\$542	\$3,309	\$22,864
Santa Cruz	CA	\$5,637		\$3,634	\$8,629	\$503	\$3,309	\$21,712
Sault Ste Marie	MI	\$6,232		\$3,313	\$8,264	\$374	\$3,309	\$21,492
Scott AFB	IL	\$5,898		\$3,256	\$8,086	\$571	\$3,309	\$21,120
Seattle Cmp	WA	\$5,100	\$301	\$3,594	\$8,709	\$703	\$3,309	\$21,716
Seattle S2	WA	\$5,100	\$602	\$3,547	\$8,709	\$720	\$3,309	\$21,987
Sonoma County	CA	\$5,637		\$3,610	\$8,666	\$464	\$3,309	\$21,686
San Padre Island	TX	\$5,100		\$3,446	\$8,123	\$423	\$3,309	\$20,401
Spokane	WA	\$5,100		\$3,536	\$8,623	\$694	\$3,309	\$21,262
Standard City		\$6,183		\$3,274	\$8,666	\$329	\$3,309	\$21,761
State College		\$6,333		\$3,147	\$8,494	\$311	\$3,309	\$21,594
St Louis S2	MO	\$6,183		\$3,264	\$8,697	\$579	\$3,309	\$22,032
St Simons Island	GA	\$6,280		\$3,187	\$8,545	\$719	\$3,309	\$22,040
Stockton	CA	\$5,637		\$3,726	\$8,581	\$464	\$3,309	\$21,717
Sugar Grove	WV	\$6,000		\$3,165	\$8,335	\$680	\$3,309	\$21,489
Sumter/Shaw	SC	\$6,135		\$3,189	\$8,117	\$493	\$3,309	\$21,247
Tacoma	WA	\$5,100		\$3,640	\$8,709	\$685	\$3,309	\$21,443
Tampa	FL	\$5,100		\$3,441	\$8,184	\$602	\$3,309	\$20,636
Toledo	OH	\$6,605		\$3,285	\$8,205	\$420	\$3,309	\$21,824
Toms River	NJ	\$5,362		\$3,872	\$8,968	\$374	\$3,309	\$21,905
Travis AFB	CA	\$5,637		\$4,022	\$8,999	\$464	\$3,309	\$22,431
Trenton	NJ	\$5,362		\$3,852	\$8,643	\$374	\$3,309	\$21,540

Table X-2 Continued

City	State	Fed/State/Local Income Tax	Public Commulation	Personal Auto	Goods & Services	Sales Taxes	Miscellaneous	Total
Tuscaloosa	AL	\$6,183		\$3,007	\$8,246	\$700	\$3,309	\$21,445
Twentynine Palms	CA	\$5,637		\$3,723	\$8,861	\$503	\$3,309	\$22,033
Vandenberg AFB	CA	\$5,637		\$3,522	\$8,611	\$503	\$3,309	\$21,582
Ventura	CA	\$5,637		\$3,796	\$8,836	\$464	\$3,309	\$22,042
Wachapreague	VA	\$6,269		\$3,182	\$8,590	\$429	\$3,309	\$21,779
Wallops Island	VA	\$6,269		\$3,182	\$8,669	\$429	\$3,309	\$21,858
Washington DC		\$6,695	\$507	\$3,670	\$9,282	\$383	\$3,309	\$23,846
Washington DC S1		\$7,025	\$552	\$3,806	\$9,493	\$402	\$3,309	\$24,587
Washington DC S3		\$6,269	\$968	\$3,593	\$9,054	\$429	\$3,309	\$23,622
West Palm Beach	FL	\$5,100		\$3,605	\$8,747	\$556	\$3,309	\$21,317
West Point	NY	\$6,078		\$3,659	\$8,794	\$563	\$3,309	\$22,403
Whiteman AFB	MO	\$6,183		\$3,054	\$8,387	\$680	\$3,309	\$21,613
Wichita Falls	TX	\$5,100		\$3,281	\$8,616	\$423	\$3,309	\$20,729
Wilkes-Barre Grantn	PA	\$6,693		\$3,197	\$8,488	\$311	\$3,309	\$21,998
Worcester	MA	\$6,606		\$3,822	\$8,579	\$233	\$3,309	\$22,549
Wright-Patterson AFB	OH	\$6,455		\$3,139	\$8,494	\$455	\$3,309	\$21,852
Yakima	WA	\$5,100		\$3,483	\$8,512	\$685	\$3,309	\$21,089
Youngstown	OH	\$6,530		\$3,455	\$8,072	\$385	\$3,309	\$21,751
Yuma	AZ	\$5,784		\$3,426	\$8,251	\$570	\$3,309	\$21,340



## ALLOWANCES

### APPENDIX Y—DRAFT FY93 LEGISLATIVE CONTINGENCY CONUS COLA PROPOSAL

#### Contents:

Letter to the Speaker of the House of Representatives (Y-2 through Y-3).

Issue Paper. Title: Implementation of a Continental United States Cost of Living Allowance (CONUS COLA) for Uniformed Service Members (Y-4 through Y-5).

Draft bill to amend Chapter 7, Title 37, United States Code (Y-6 through Y-8).

Section-by-section analysis—Uniformed Services Cost of Living Allowance Act of 1992 (Y-9 through Y-10).

Honorable Thomas S. Foley  
Speaker of the House of Representatives  
Washington, DC 20515

Dear Mr. Speaker:

There is forwarded herewith a legislative proposal "To amend chapter 7, title 37, United States Code, to establish a cost of living allowance for members of the uniformed services assigned to high cost areas in the continental United States." The Seventh Quadrennial Review of Military Compensation, which has been designated the representative of the Department of Defense for this proposal, recommends that the legislation be enacted.

#### Purpose of the Legislation

Members of the uniformed services are frequently required to move to high cost areas in the continental United States. The private sector pay scale in these areas is able to reflect the higher cost of living, but the military pay scale is somewhat inflexible. An allowance reimburses members for variations in the cost of housing, but there is nothing similar to compensate for variations in nonhousing costs. Research reveals that these nonhousing costs vary from 5% below to 19% above the national average:

To illustrate, a move from Newport News, a location with a nonhousing cost of living only slightly higher than the national average, to San Francisco results in a 11.7% loss in purchasing power. At the extremes, a move from Minot Air Force Base to Westchester County results in a 25.5% loss in purchasing power. Such moves can have the effect of negating two pay raises, one due to promotion and another due to longevity. One or two tours in high cost areas over the course of a career generate a loss in purchasing power that, because of its magnitude, cannot be recouped.

Further, the disparity is growing rather than shrinking. A sampling of US cities showed a cost of living difference between lowest and highest of 33% in 1980 and 53% in 1990. (Since these figures include housing costs, they are higher than those cited in the first paragraph of this section.)

Aside from considerations of equity, assignments to high cost areas have an adverse impact on readiness. Some members faced with an assignment to a high cost area elect to retire, or otherwise leave the service, rather than accept the loss in purchasing power. The problem is particularly acute for the Navy and Coast Guard because coastal locations tend to be high cost areas. Coast Guard and Navy assignments personnel report that some positions in high cost areas remain vacant for extended periods of time or are filled by junior members with less experience. Other services report that

personnel in certain occupational specialties and those assigned to high cost areas. Analysis of readiness problems in high cost areas has shown a definite decrease in readiness over a ten year period. The economic trend discussed in the preceding paragraph portends even greater readiness problems.

The proposed legislation establishes a cost of living allowance designed to reduce the loss in purchasing power that ensues upon assignment to a high cost area. Calculations disregarding housing and subsistence as these costs are addressed by other allowances. They take into account savings attributable to military facilities (commissary, exchange, and military health care) and relate those savings to the specific location. Also, the calculations recognize the fact that income taxes represent a smaller portion of cost of living in high cost areas than elsewhere. Finally, the allowance is adjusted to maintain after-tax purchasing power.

The entitlement only covers that part of the cost of living in high cost areas that exceeds 5% above the national average. A threshold is established at that point because members may be assigned to areas where the cost of living is as much as 5% below the national average. Thus, assignments within that ten point range (5% below to 5% above the national average) tend, over the course of a career, to offset each other.

It is intended that this legislation mirror that regarding the variable housing allowance (VHA) in 37 USC 9403a. Two essential differences remain: VHA applies in Alaska and Hawaii but this allowance would not because overseas COLA applies there; VHA has with/without dependents rates but this allowance would vary only on basic pay and location.

In summary, this legislation proposes an allowance that merely protects service members from a catastrophic loss of purchasing power over the course of a career.

#### Cost and Budget Data

The costs to fund the CONUS cost of living allowance are as follows (million):

	FY93	FY94	FY95	FY96	FY97
Army	\$22.5	\$21.9	\$21.2	\$22.0	\$22.9
Navy	63.6	63.9	65.7	67.5	70.0
Marine Corps	19.2	19.4	19.6	19.7	19.7
Air Force	34.7	35.1	35.9	37.9	38.8
DoD total	\$140.0	\$140.3	\$142.4	\$147.0	\$151.4

Sincerely,

HOUSE FILE

TITLE: Implementation of a Continental United States Cost of Living Allowance (CONUS COLA) for Uniformed Service Members

ORIGINATOR: Seventh Quadrennial Review of Military Compensation

DESCRIPTION: Proposed legislation to amend title 37, United States Code, to establish a cost of living allowance for the uniformed service members assigned to high cost areas in the continental United States.

NUMBER OF PERSONNEL AFFECTED:

	<u>FY93</u>	<u>FY94</u>	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>
Army	29,484	27,509	25,528	25,528	25,528
Navy	83,242	80,162	79,120	78,171	77,936
Air Force	45,360	44,045	43,296	43,859	43,201
Marine Corps	25,182	24,376	23,571	22,770	21,973

EXISTING LEGISLATION: None

COORDINATORS:

CAPT Tangeman (USCG), Lt Col Creekmore (USAF),  
LTC Krejci (ARNG), Maj Townsend (USAF),  
LT Berry (USNR), Capt Hawes (USMC)

PHONE#

3-2210

RESOURCE REQUIREMENTS: (\$ Millions)

	<u>FY93</u>	<u>FY94</u>	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>
Army	22.5	21.9	21.2	22.0	22.9
Navy	63.6	63.9	65.7	67.5	70.0
Air Force	34.7	35.1	35.9	37.9	38.8
Marines Corps	19.2	19.4	19.6	19.7	19.7
Total	140.0	140.3	142.4	147.0	151.4

COSTING METHODOLOGY: Runzheimer International was contracted to provide cost of living surveys for 200 CONUS areas which included most, if not all, high cost of living areas. Housing and an amount equal to the enlisted allowance for subsistence were excluded from analysis. Results were adjusted for the savings attributed to base support facilities (i.e., commissary, exchange, and medical).

Five percent above the national average cost of living was selected as the threshold. All cost of living in an area below five percent would be absorbed by service members and costs above five percent would be reimbursed by the CONUS cost of living allowance.

In areas where the cost of living is in excess of the 3.5 percent threshold, the cost of living allowance is determined by multiplying basic pay by the percent difference between the local area's cost of living and the threshold. The result is then adjusted to maintain after-tax purchasing power. Overall DAFM COLA cost estimates were computed using FY93-FY97 projected strength reductions and projected basic pay annual increases.

A BILL

To amend chapter 7, title 37, United States Code, to establish a cost of living allowance for members of the uniformed services assigned to high cost areas in the continental United States.

1     Be it enacted by the Senate and House of Representatives of  
2     the United States of America in Congress assembled,

3     **SECTION 1.  SHORT TITLE.**

4             This Act may be cited as the "Uniformed Services CONUS Cost of  
5     Living Allowance Act of 1992."

6     **SECTION 2.  NEW SECTION.**

7             Chapter 7 of title 37 is amended by adding at the end the  
8     following new section:

9     **"§ 434.  Cost of living allowance in the continental United States.**

10            "(a)  A member of the uniformed services is entitled to an  
11     allowance under this section while assigned to a high cost area in  
12     the continental United States.  A high cost area is a location  
13     where the cost of living exceeds the national average cost of  
14     living by more than five percent.

15            "(b)  A member is not entitled to an allowance under this  
16     section for the number of days during which travel is authorized  
17     while changing permanent duty stations.

18            "(c)  A member is entitled to an allowance under this section,  
19     while assigned to an unaccompanied tour of duty outside the  
20     continental United States, based on the area where the member's  
21     dependents reside.

1       "(d) A member assigned to duty in the Continental United  
2 States whose dependents, due to the duty location or other  
3 circumstances, must reside in a high cost area, may be paid an  
4 allowance under this section based on the area where the member's  
5 dependents reside if it would be inequitable to base the allowance  
6 under this section on the duty location.

7       "(e) The following steps determine entitlement to a cost of  
8 living allowance:

9               "(1) The cost of living for the specific location is  
10 divided by the national average cost of living.

11               "(2) If the result exceeds 1.05, members assigned to  
12 that location are entitled to a cost of living allowance.

13               "(3) Subtract 1.05 from the result obtained in step 1.

14               "(4) Multiply member basic pay by the result obtained in  
15 step 3 and adjust the final result to maintain after-tax purchasing  
16 power of the allowance.

17               "(5) The result from step 4 is the cost of living  
18 allowance for all members of the same grade and time in service  
19 assigned to the specific location.

20       "(f) 'Cost of living,' as that term is used in this section,  
21 means nonhousing costs (transportation, goods, and services), plus  
22 average income tax, less savings attributable to military  
23 facilities (commissary, military exchange, and military health  
24 care), less military subsistence allowance. Nonhousing costs and  
25 savings attributable to military facilities vary geographically.  
26 Average income tax is a standard which is included in calculating

1 the national average cost of living and the cost of living for the  
2 location in question. Military subsistence allowance is also a  
3 standard which is excluded from both calculations.

4 "(g) Members of reserve components. A member of a reserve  
5 component is not entitled to the allowance under this section  
6 except when on active duty under a call or order that specifies a  
7 tour of active duty of 140 days or more or states that the active  
8 duty is in support of a contingency operation.

9 "(h) The President shall promulgate regulations to implement  
10 this section."

11 **SECTION 3. TABLE OF SECTIONS.**

12 The table of sections at the beginning of chapter 7 of title  
13 37 is amended by adding at the end the following new item:

"434. Cost of living allowance in the continental United States."



SECTION-BY-SECTION ANALYSIS  
UNIFORMED SERVICES CONUS COST OF LIVING ALLOWANCE ACT OF 1992

Section 1. Short Title. Self-explanatory.

Section 2. New Section. This section amends chapter 7 of title 37 by adding a new section 434 entitled "Cost of living allowance in the continental United States."

Subsection 434(a). This subsection creates an entitlement to a cost of living allowance for a member of the uniformed services assigned to high cost area in the continental United States (CONUS). "High cost area" means a CONUS location where the cost of living is more than 5% higher than the national average cost of living.

Subsection 434(b). A member is not entitled to an allowance while traveling between permanent duty stations. The same rule applies to the variable housing allowance under 37 USC §403a(b)(1).

Subsection 434(c). A member serving an unaccompanied tour of duty overseas is entitled to an allowance based on the area where his dependents reside. The same rule applies to the variable housing allowance under 37 USC §403a(a)(1).

Subsection 434(d). A member assigned to a CONUS location, whose dependents must reside in a high cost area elsewhere, may apply for an allowance based on the location where his dependents reside if it would be inequitable to base the allowance on the duty location. The same rule applies to the variable housing allowance under 37 USC §403a(a)(2). Regulations promulgated under subsection 434(h) should establish criteria for the application of this rule.

Subsection 434(e). This subsection explains the mathematical process used to determine eligibility for, and the amount of, the cost of living allowance for a given location. The cost of living in each location is divided by the national average cost of living. If the result exceeds a 5% threshold, the basic pay of members assigned to that location is multiplied by the percent by which the threshold is exceeded in order to determine the amount of the allowance. The allowance is adjusted to maintain after-tax purchasing power.

Subsection 434(f). This subsection defines cost of living, i.e., the starting point for the calculations set forth in the preceding subsection. Since the mathematical process described above begins by dividing the cost of living in a given location by the national average cost of living, it is important to note those elements of the definition that are location-specific (as opposed to averaged) and those that are standards.

The definition includes only nonhousing costs (goods, services, and transportation); this element is location-specific in the numerator of the calculation and is averaged in the denominator. It excludes housing because fluctuations in housing costs are covered by a variable housing allowance. It includes average income taxes in the numerator and in the denominator; this element is a standard for both sides of the calculation. If taxes are excluded, the resulting index is artificially high. The definition recognizes savings attributable to military facilities (military exchange, commissary, and military health care) by deducting them from the numerator and from the denominator; this element is location-specific in the numerator and is averaged in the denominator. Away-from-home food costs are included in goods and services but at-home food costs are excluded by deducting the military subsistence allowance from the numerator and from the denominator; thus, the subsistence allowance is a standard.

Subsection 434(g). Members of reserve components ordered to active duty for less than 140 days are not entitled to variable housing allowance; see 37 USC §403a(b)(3). They are, however, entitled to travel and transportation allowance (per diem) if the active duty is away from their normal duty station; see 37 USC §404(a)(4). If ordered to active duty for 140 days or more, the assignment is considered a permanent change of station and the member is not entitled to per diem. In this latter situation, the member would be entitled to the allowance under this section. This subsection also contemplates passage of provisions in pending authorization bills regarding active duty in support of contingency operations.

Subsection 434(h). It is recognized that, within the framework of the legislation proposed, regulations are needed to refine its application. Since the legislation applies to all of the uniformed services, the President should promulgate the regulations.

Section 3. Table of Sections. Self-explanatory.